

6th ISSUE

INFORMATION AND PROCEDURES
FOR OFFSHORE OPERATORS

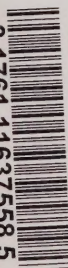
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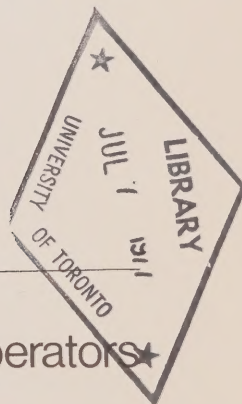
resource management and conservation branch
department of energy, mines and resources
ottawa, canada

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FOREWORD

The Resource Management and Conservation Branch manages and administers the federal interests in mineral resources off Canada's East and West Coasts and in the Hudson Bay and Hudson Strait regions.

"Offshore Exploration" is prepared by the Branch in response to the continuing need for liaison between the oil and mining industries and the various federal agencies concerned with Canada's interests offshore. The main purposes of the publication are: to introduce to operating companies the responsibilities and requirements of federal agencies concerned with the Offshore; to note some of the services available through agencies; and to list the persons who may be contacted for assistance. The publication is free of charge and supersedes the fifth issue dated February 1973.

CONTENTS

PART 1—FEDERAL AGENCIES CONCERNED WITH OFFSHORE EXPLORATION	1
SECTION A—Federal agencies that must be notified of offshore operations	3
Department of Energy, Mines and Resources	
Resource Management and Conservation Branch	4
Department of Transport	
Aids and Waterways, Canadian Coast Guard	7
Department of Fisheries and the Environment	
Environmental Protection Service	8
Department of National Defence	
Office of the Maritime Commander	9
Department of Indian Affairs and Northern Development	
Northern Non-Renewable Resources Branch	9
SECTION B—Other federal agencies that may have to be notified	11
National Research Council	
Space Research Facilities Branch	12
Department of Fisheries and the Environment	
Fisheries and Marine Service	12
Canadian Wildlife Directorate	12
Canadian Hydrographic Service	12
Department of National Revenue	
Customs and Excise	13
Department of Energy, Mines and Resources	
Surveys and Mapping Branch	13
Department of Transport	
Canadian Coast Guard	14
Aids and Waterways Branch	14
Ship Safety Branch	14
Fleet Systems Branch	14
Pilotage Branch	15
Marine Emergencies	15
Department of Communications	
Telecommunication Regulatory Service	16
Department of Manpower and Immigration	
Canada Immigration Division	17
Department of Industry, Trade and Commerce	
Aerospace, Marine and Rail Branch	17
Canadian Transport Commission	17
SECTION C—Federal agencies providing specialized scientific information	19
Department of Energy, Mines and Resources	
Geological Survey of Canada	20
Earth Physics Branch	20

Polar Continental Shelf Project.....	20
Surveys and Mapping Branch.....	21
Department of Fisheries and the Environment	
Ocean and Aquatic Sciences.....	21
Canadian Hydrographic Service.....	21
Oceanography Branch.....	22
Bedford Institute of Oceanography.....	22
Institute of Ocean Sciences.....	22
Fisheries Resource Services.....	22
Atmospheric Environment Service.....	23
PART II—SUPPLEMENTAL INFORMATION FOR OFFSHORE OPERATORS..	
Licence, Permit and Lease Administration.....	26
Official Notices	
Offshore Program Notice.....	30
Offshore Drilling Notice.....	31
Offshore Well Abandonment Notice.....	32
Security and Visit Clearance for Industry Personnel.....	33
Selected Government Publications.....	34
Availability of Reports and Well Materials.....	36
Available Reports	
Well History Reports.....	37
Geological Reports.....	39
Geophysical Reports.....	39
Released Research Reports.....	40
Exploratory Wells Drilled in the Canadian Offshore.....	43
Terms and Symbols.....	44
List of Wells.....	45
Map: Offshore Wells: Pacific.....	55
Map: Offshore Wells: Hudson Bay.....	56
Map: Offshore Wells: Labrador Shelf.....	57
Map: Offshore Wells: Grand Banks.....	58
Map: Offshore Wells: Scotian Shelf and Gulf of St. Lawrence.....	59
Selected Chronological Bibliography—Geology and Geophysics.....	61
East Coast Offshore.....	62
Hudson Bay and Hudson Strait.....	67
West Coast Offshore.....	68
Graphs and Histograms	
Cumulative Number of Wells Drilled Offshore Canada and Annual Footage: Oil and Gas Drilling Offshore Canada.....	72
Expenditures by Industry in Search of Oil and Gas Offshore Canada.....	73
Offshore Oil and Gas Permit Maps and Index.....	75

Part I

FEDERAL AGENCIES CONCERNED WITH OFFSHORE EXPLORATION

Certain federal agencies concerned with Canada's offshore regions must be notified prior to the commencement of any offshore exploration activity. The operator or permittee—not the contractor—is responsible for providing the requisite advance notice of planned offshore programs to these agencies by writing direct to them.

The prime regulatory agency for mineral resource activities off Canada's East and West Coasts and in the Hudson Bay and Hudson Strait regions is:

Resource Management and Conservation Branch,
Department of Energy, Mines and Resources,
Ottawa, Ontario.
K1A 0E4

Other agencies that should be informed are:

Office of the Maritime Commander,
Department of National Defence,
Regional Offices

Aids and Waterways Branch
Canadian Coast Guard
Department of Transport
Ottawa and Regional Offices

Environmental Protection Service
Department of Fisheries and the Environment
Ottawa and Regional Offices


Offshore programs in the far North are administered by the Northern Non-Renewable Resources Branch of the Department of Indian Affairs and Northern Development, Ottawa, Ontario.

These five agencies are referred to in more detail in Section A.

It is important to note that in the case of the Hudson Bay and Hudson Strait Regions, operators must also inform the National Research Council of proposed work. Circumstances may be such that other agencies should also be notified, and these are listed in the following pages, together with the names of persons who may be of assistance. For example, since operators may be responsible for any damage caused to underwater commercial cables, it is recommended that they contact the Canadian Hydrographic Service for cable-lay data covering the area over which the work is to be performed. As another example, Customs and Excise should be contacted by the importing company if foreign vessels or equipment are to be brought in from abroad for work in Canadian waters. These agencies are referred to in Section B.

Agencies in a position to provide specialized scientific information are given in Section C.

Part II provides some supplemental information that may be of interest to offshore operators.



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Section A

This section outlines the requirements of the federal agencies that must be notified of proposed offshore operations.

DEPARTMENT OF ENERGY, MINES AND RESOURCES

Resource Management and Conservation Branch

The Resource Management and Conservation Branch is responsible for the administration of the federal interests in mineral resources off Canada's East and West Coasts and in the Hudson Bay and Hudson Strait regions. The aim of the Branch is to provide a uniform system of resource management that encourages and maintains, in a manner consistent with the public interest, the continuing and orderly development of offshore mineral resources. The Branch also handles those federally-owned mineral rights in the Provinces that become available for development.

The Branch develops and provides policy recommendations and advice on matters related to the Offshore; provides representation and expertise on inter-department, federal-provincial and international offshore matters; exercises statutory authority and regulatory control over offshore operations; provides coordination and liaison among numerous governmental and industrial agencies concerned with utilization and protection of offshore areas; undertakes environmental assessments and provides information and advice on a wide variety of mineral resource and related matters to other governments, industry and academic organizations, and the public.

The disposition of oil and gas exploration permits and production leases on Canada Lands, on land and offshore, is governed by the *Canada Oil and Gas Land Regulations*, which were promulgated under the *Public Lands Grants Act* and the *Territorial Lands Act*. Comprehensive statutory authority for controlling all oil and gas operations including the conservation of resources, the prevention of pollution and the safety of personnel is provided for by the *Oil and Gas Production and Conservation Act* and regulations thereunder.

In brief, the Branch is the prime federal agency concerned with mineral resource development in the Canadian Offshore, excluding the high Arctic. Accordingly, all offshore operators or prospective operators must notify the Branch at least 45 days in advance of the commencement date of any proposed program. Official Notices, reduced-scale copies of which are shown in Part II, must be submitted in triplicate. They should be accompanied by operational details, and maps illustrating the proposed offshore work

program, together with written confirmation that the proper advance notice of the program has been supplied to the Office of the Commander, Maritime Command, Department of National Defence; Coast Guard Aids, Department of Transport; and the Environmental Protection Service of the Department of Fisheries and the Environment. These agencies are referred to in more detail in the next few pages.

Advance notice is also required when operators plan expenditures for onshore programs which they intend to submit for approval as off-permit expenditures under the *Canada Oil and Gas Land Regulations*. Advance notice should also be given prior to the purchase of geophysical data if the permittee plans to submit the expenditures for approval.

Additional information in Part II of this publication includes reduced-scale copies of official Notices already referred to, a selected bibliography, the availability of reports and well materials released from confidential status, a list of selected publications, and small-scale offshore permit maps.

As a general rule, all correspondence should be addressed to:

Director,
Resource Management and Conservation Branch
Department of Energy, Mines and Resources
Ottawa, Ontario.
K1A 0E4

Name: D. G. Crosby
Phone: (613) 995-9351

The Resource Management and Conservation Branch may also be reached by:

Telex: 053-4366
Telecopier: (613) 996-5707

The Mineral Rights Division of the Branch, through the issuance of exploration permits and production leases, makes available rights to mineral development on all Canada lands in the Offshore excluding the High Arctic; and ensures that holders of such terminable grants fulfill the terms and obligations stipulated in the *Regulations* in order to maintain their interests in good standing.

Advice and assistance on matters relating to the disposition and administration of mineral rights, such as the issuance and terms of permits and leases and expenditures allowable for credit against permit or lease work obligations, may be obtained from:

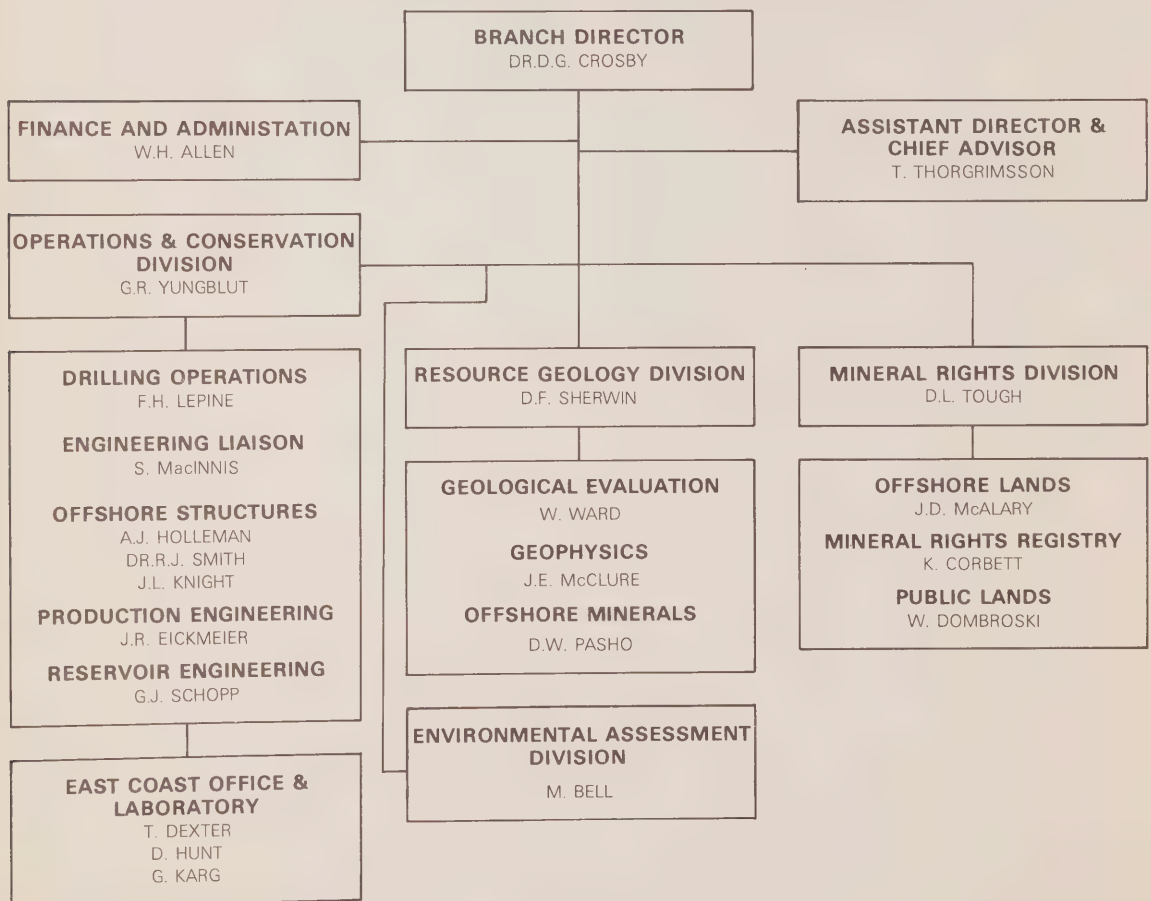
Chief,
Mineral Rights Division,
Resource Management and Conservation Branch,
Ottawa, Ontario.
K1A 0E4

Name: D. L. Tough
Phone: (613) 995-9351

Additional information is provided under the heading
Licence, Permit and Lease Administration in Part II of
this publication.

The Resource Geology Division of the Branch evaluates geological and geophysical information submitted by offshore operators, and assesses the mineral resource potential of prospects and specific areas in Canada's offshore regions, as well as for federally-owned mineral rights in the Provinces, for resource management purposes. The Division is also responsible for the handling and curation of lithologic and paleontologic materials from offshore wells, and for the assembly and maintenance of a data bank of geological and geophysical information from the offshore.

RESOURCE MANAGEMENT AND CONSERVATION BRANCH



Requirements and procedures with regard to the submission, confidentiality and subsequent examination of geophysical and geological data, including well materials, as well as sources of geological information and related matters, may be obtained from the office of:

Chief,
Resource Geology Division,
Resource Management and Conservation Branch,
Ottawa, Ontario.
K1A 0E4

Name: D. F. Sherwin
Phone: (613) 995-9351

The Operations and Conservation Division of the Branch exercises regulatory control over all exploration, drilling, production, conservation, measuring, gathering, storage, processing, transmission and other handling of oil and gas offshore. This control includes the analysis of operational hazards, of proposed equipment and installations in the Offshore and the nature and economic potential of reservoirs. Operators must meet the requirements of the Division as regards the safety of personnel, the protection of the environment, the prevention of pollution and waste, and the conservation of resources.

Assistance on such operational matters as the drilling, testing, completion or plugging of offshore wells; offshore structures; geophysical surveys; reporting requirements; pollution contingency plans; offshore environmental and feasibility projects; and the availability of reports after their release from confidential status may be obtained from the office of:

Chief,
Operations and Conservation Division,
Resource Management and Conservation Branch,
Ottawa, Ontario.
K1A 0E4

Name: G. R. Yungblut
Phone: (613) 995-9351
After Hours: (613) 722-9286

or from other engineers in the Division including:

F. H. Lepine
Head, Drilling and Operations Section
Phone: (613) 995-9351

On the East Coast, information and assistance on operational matters and on the examination of well materials, in addition to exploration and assessment reports, is available from the Branch's Regional Office in Dartmouth:

East Coast Offshore Operations Manager,
Resource Management and Conservation Branch,
Department of Energy, Mines and Resources,
Bedford Institute of Oceanography,
P.O. Box 1006,
Dartmouth, Nova Scotia.
B2Y 4A2

Name: T. W. Dexter
Phone: (902) 426-3179
After Hours: (902) 477-5886

DEPARTMENT OF TRANSPORT

Coast Guard Aids and Waterways

At least 45 days notice is required by this agency prior to the commencement of any proposed offshore program. This lead time is needed in the event that the location of the program warrants the issuance of a "Canadian Notice to Mariners". These national Notices may be subsequently copied into related foreign publications. Local "Notices to Shipping" advertising the program will also be issued as necessary.

Coast Guard Aids and Waterways may also specify the aids to navigation devices needed for the proposed program.

The Department of Transport has the duty to protect navigation with respect to works in navigable waters. A "work" includes any structure, pipe, pile or buoy used in connection with the exploration for, or development of, resources located in or under the water.

Coast Guard Aids and Waterways processes applications for approval or exemption under the *Navigable Waters Protection Act*, and will answer inquiries in this regard.

The Department of Transport also administers the *Canada Shipping Act* and the regulations made pursuant to this Act.

Communications should be directed to:

Director,
Coast Guard Aids and Waterways Branch,
Department of Transport,
Ottawa, Ontario.
K1A 0N7

Name: J. N. Ballinger
Phone: (613) 992-2234
Telex: 053-3128

In addition, there are a number of Departmental officers who may be contacted in the field should the need arise. Their addresses are as follows:

Regional Director,
Canadian Coast Guard,
Department of Transport,
P. O. Box 1300,
St. John's, Newfoundland.
A1C 5N5

Telex: 016-4530

Regional Director,
Canadian Coast Guard,
Department of Transport,
P. O. Box 1013,
Dartmouth, Nova Scotia.

Telex: 019-21615

Regional Director,
Canadian Coast Guard,
Department of Transport,
2 Place Quebec, Room 212
Quebec, Quebec.
G1R 2B5

Telex: 051-3723
(This office handles Hudson Bay)

Regional Director,
Canadian Coast Guard,
Department of Transport,
Box 10060 Pacific Centre,
700 West Georgia Street,
Vancouver, B. C.
V7Y 1E1

Telex: 045-3235

District Managers of the Canadian Coast Guard are located in Victoria, B.C.; Prince Rupert, B.C.; Hay River, N.W.T.; Parry Sound, Ontario; Prescott, Ontario; Montreal, P.Q.; Saint John, N.B.; Charlottetown, P.E.I.; Dartmouth, N.S.; and Goose Bay, Labrador.

DEPARTMENT OF FISHERIES AND THE ENVIRONMENT

Environmental Protection Service

Operators are required to give 45 days notice in advance of any proposed offshore program to this agency.

This is a service and liaison agency which implements protection programs to meet environmental quality objectives or resource protection requirements. EPS also undertakes a coordinating function with regard to other agencies within the Department of Fisheries and the Environment.

Written notices should be sent to the appropriate regional officers (see below) with a copy to:

Assistant Deputy Minister,
Environmental Protection Service,
Department of Fisheries and the Environment,
Hull, Quebec.
K1A 0H3

Name: L. Edgeworth
Phone: (613) 997-1575
Telex: 053-3608

The addresses of the regional offices are as follows:

Director, Atlantic Region,
Environmental Protection Service,
Department of Fisheries and the Environment,
5151 George Street
Halifax, Nova Scotia.
B3J 1M5

Name: C. J. Edmonds
Phone: (902) 426-3593
Telex: 019-21565

Director, Quebec Region,
Environmental Protection Service,
Department of Fisheries and the Environment,
2020 University Street,
Montreal, Quebec.
H3B 3K9

Name: G. Gauthier
Phone: (183) 283-4670
Telex: 052-6887

Director, Pacific Region,
Environmental Protection Service,
Department of Fisheries and the Environment,
Kapilano 100—Park Royal,
West Vancouver, British Columbia.
V7T 1A2

Name: R. E. McLaren
Phone: (604) 544-1064
Telex: 045-4476

Director, Northwest Region,
Environmental Protection Service,
Department of Fisheries and the Environment,
10025 Jasper Avenue,
Edmonton, Alberta.
T5J 2X9

Name: J. Mar
Phone: (403) 425-5128
Telex: 037-2099

In Ottawa, information regarding EPS requirements may also be obtained from:

Director-General,
Environmental Conservation Directorate,
Environmental Protection Service,
Department of Fisheries and the Environment,
Ottawa, Ontario.
K1A 0H3

Phone: (613) 997-4292
Telex: 053-3799

Fisheries and Marine Service

Fisheries and Marine Service must be contacted directly by the operator 90 days in advance if high explosives are to be used for offshore geophysical surveys. For further information please refer to page 12, Section B.

DEPARTMENT OF NATIONAL DEFENCE

Office of the Maritime Commander

The appropriate Office of Maritime Command should be given 45 days advance notice in writing of any offshore program. Prior to the commencement of field work, an employee of the operator may have to confer with staff officers of Maritime Command on such matters as underwater defence cables, firing practices, exercises, naval operations and shipwreck positions in the area involved. Relevant information will be supplied to the operator on a need-to-know basis.

It may facilitate matters for an employee of the operator or permittee to have obtained security clearance prior to discussion of a proposed program with staff officers of Maritime Command. Security clearance for industry personnel is obtained through the Resource Management and Conservation Branch of the Department of Energy, Mines and Resources, and details of the procedures are given on page 33 in Part II.

Operations in the Atlantic, the Gulf of St. Lawrence, the Labrador Sea, Hudson Bay, and Arctic waters east of longitude 141° West, are handled by the office of:

Commander, Maritime Command,
Department of National Defence,
F.M.O., HMC Dockyard,
Halifax, Nova Scotia.
B3K 2X0

Maritime Command Operations Centre
Phone: (902) 426-4706
Telex: 019-21789

Operations off the West Coast are handled by the Office of:

Commander, Maritime Forces Pacific,
Department of National Defence,
F.M.O.,
Victoria, British Columbia.
V0S 1B0

Maritime Forces Pacific Operations Centre
Phone: (604) 388-1597
Telex: 044-8245

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

Northern Non-Renewable Resources Branch

This agency administers the mineral resources in the Yukon and Northwest Territories (which includes the Beaufort Sea, inter-island water areas, Davis Strait and Baffin Bay).

Notice of commencement of exploratory work must be filed 15 days prior to commencement of proposed exploratory programs on the mainland and 45 days prior to commencement of work on offshore areas with the:

Northern Non-Renewable Resources Branch,
Department of Indian Affairs and Northern
Development,
112 - 11th Avenue S. W.,
Calgary, Alberta.
T2G 0X5
Phone: (403) 231-5631

Information and assistance may also be obtained from:

Director,
Northern Non-Renewable Resources Branch,
Department of Indian Affairs and Northern
Development,
400 Laurier Avenue West,
Ottawa, Ontario.
K1A 0H4

Name: H. W. Woodward
Phone: (613) 992-9402

or from the Branch's:

Chief,
Oil and Gas Lands Division.

Name: P. Sullivan
Phone: (613) 995-8994

or:

Name: S. A. Kanik
Phone: (613) 995-7589

or:

Chief,
Oil and Gas Resources Evaluation Division.

Name: J. P. Hae
Phone: (613) 996-8387

or:

Acting Chief,
Oil and Gas Engineering Division.

Name: T. Baker
Phone: (613) 996-1278

Many maps dealing with northern resource activities, and information on the availability of reports and well materials submitted to this agency by industry under the *Canada Oil and Gas Land Regulations* and subsequently released from confidential status may be obtained through the agency's offices in Ottawa, Calgary, Inuvik, and Yellowknife.

Section B

Circumstances may be such that notification must be given to other federal agencies concerned with the Offshore. This section outlines for prospective offshore operators the responsibilities or specialized services of these agencies.

NATIONAL RESEARCH COUNCIL

Space Research Facilities Branch

Operators planning offshore activities in the Hudson Bay region must inform the following agency well in advance since rockets are fired on a year-round basis from the Churchill Research Range.

Head, Range Section,
Space Research Facilities Branch,
National Research Council of Canada,
Ottawa, Ontario.
K1A 0R6

Name: Z. R. Charko
Phone: (613) 993-9385

In addition, operators active in the Hudson Bay region are required to coordinate their field activities with:

Superintendent,
Churchill Research Range,
National Research Council of Canada,
Churchill, Manitoba.
R0B 0E0

Name: C. R. Barrett
Phone: (204) 856-3010

DEPARTMENT OF FISHERIES AND THE ENVIRONMENT

Fisheries and Marine Service

If high explosives are to be used by an operator for a proposed seismic survey, then the respective Regional Director-General of Fisheries must be given advance notice of 90 days in case it should be decided that the presence of qualified fisheries observers is required.

Notification should be sent to the appropriate regional offices, Fisheries Management—see page 22.

In Ottawa, further information on the Fisheries and Marine Service is available from:

Director,
Aquatic Environment Branch,
Fisheries Management,
Fisheries and Marine Service,
Department of Fisheries and the Environment,
Ottawa, Ontario.
K1A 0H3

Name: J. C. MacLeod
Phone: (613) 994-5041

Canadian Wildlife Directorate

The Service discharges federal responsibilities in regard to wildlife. Information, such as the locations of migratory bird sanctuaries along the seacoasts, may be obtained from:

Director-General,
Canadian Wildlife Directorate,
Department of Fisheries and the Environment,
Ottawa, Ontario.
K1A 0H3

Attention: V. E. F. Solman
Phone: (613) 997-1840

Canadian Hydrographic Service

Operators may be liable for any damage caused to underwater commercial cables. Every operator planning to undertake an offshore program is strongly urged to ascertain well in advance of the planned date of commencement the disposition of any commercial cables within the area involved.

If desired, relevant information supplied by the operator or permittee on the proposed program will be treated as confidential.

Requests for cable-lay information, accompanied by a plan showing the specific work area, should be sent to:

Canadian Hydrographic Service,
Ocean and Aquatic Sciences,
Department of Fisheries and the Environment,
Ottawa, Ontario.
K1A 0E6

Attention: J. Bruce
Phone: (613) 994-5141

DEPARTMENT OF NATIONAL REVENUE

Customs and Excise

This agency must be contacted if vessels or equipment from abroad are to be used for proposed offshore programs carried out in Canadian waters.

The Port Administration Division administers that portion of the *Canada Shipping Act* relating to the coasting trade. A company importing ships or specialized plant and equipment for exploration work off Canada's sea-coasts may obtain information, assistance and other contacts as may be necessary in Customs and Excise from:

Director,
Port Administration Division,
Customs and Excise,
Department of National Revenue,
Ottawa, Ontario.
K1A 0L5

Name: M. A. Gallup
Phone: (613) 992-4952

DEPARTMENT OF ENERGY, MINES AND RESOURCES

Surveys and Mapping Branch

This agency develops the technical specifications for positional surveys required to locate offshore wells and related facilities. Survey plans for exploratory wells, submitted through the Resource Management and Conservation Branch, are subject to review by the agency. Plans of legal survey, a requirement for development wells, must be made in accordance with the instructions of the Surveyor General and, subsequently, must be approved by him.

Specifications for offshore well surveys, and general inquiries concerning offshore surveying, may be directed to:

Surveyor General,
Legal Surveys Division,
Surveys and Mapping Branch,
Department of Energy, Mines and Resources,
Ottawa, Ontario.
K1A 0E9

Name: D. R. Slessor
Phone: (613) 994-9174

Information concerning coastal control surveys may be obtained from:

Dominion Geodesist,
Geodetic Survey,
Surveys and Mapping Branch,
Department of Energy, Mines and Resources,
Ottawa, Ontario.
K1A 0E9

Name: L. J. O'Brien
Phone: (613) 994-5775

When requesting control survey data, the area involved should be designated by latitude and longitude. In the case of a large area, it is important to state priorities within the area to facilitate processing.

DEPARTMENT OF TRANSPORT

Canadian Coast Guard

The Canadian Coast Guard, formerly known as Marine Services, and headed by the Commissioner, is a component of the Canadian Marine Transportation Administration. The objectives of the Canadian Coast Guard are: to support waterborne commerce by ensuring the safe and efficient movement of marine traffic; to provide services that promote the safety of life and property in the marine environment; to support the marine related objectives of other Governmental departments; to encourage and promote research and development in marine transportation and ancillary services, recovering financial costs to the degree practicable.

These objectives are carried out through a headquarters organization and five regional directorates. Further information and assistance may be obtained from:

Commissioner,
Canadian Coast Guard,
Department of Transport,
Ottawa, Ontario.
K1A 0N7

Name: W. A. O'Neil
Phone: (613) 992-3438

The following are Branches of direct concern:

Aids and Waterways Branch

The Aids and Waterways Branch controls floating and electronic aids to navigation, and monitors and controls dredging and maintenance operations of the national ship channels. Information may be obtained by contacting:

Director,
Coast Guard Aids and Waterways Branch,
Department of Transport,
Ottawa, Ontario.
K1A 0N7

Name: J. N. Ballinger
Phone: (613) 992-2234

Ship Safety Branch

The Ship Safety Branch is concerned with safety of life and property at sea and the protection of the environment in so far as ships are concerned. The responsibilities include the inspection and certification of vessels under the *Canada Shipping Act*, oil pollution by ships, registration of shipping, safe working practices, methods of stowing cargo, marine personnel and navigational safety matters and regulations concerning the design, construction maintenance and operation of air cushion vehicles.

Further information and assistance may be obtained from:

Director,
Coast Guard Ship Safety Branch,
Department of Transport,
Ottawa, Ontario.
K1A 0N7

Name: G. W. R. Graves
Phone: (613) 992-8892

Fleet Systems Branch

The Fleet Systems Branch has major responsibilities in two areas of concern to offshore operators: support of shipping in icebound waters and marine search and rescue.

If operations are being contemplated for areas where ice may be a problem and where icebreaker or other support may be desired, there should be consultation with the Director of Fleet Systems as long in advance as possible. This is particularly important in the case of Arctic or Hudson Bay operations where the planning of icebreaker disposition is usually done six months in advance of the season. Information may be obtained by writing to:

Director,
Coast Guard Fleet Systems Branch,
Department of Transport,
Ottawa, Ontario.
K1A 0N7

Phone: (613) 992-4209

Pilotage Branch

Information and assistance regarding pilotage matters may be obtained through:

Director,
Coast Guard Pilotage Branch,
Department of Transport,
Ottawa, Ontario.
K1A 0N7

Name: M. Dussault
Phone: (613) 992-4032

The Pilotage Authorities are responsible for providing a safe and efficient pilotage service to national and international shipping within their respective areas. Requests for information regarding pilotage services available off the East and West coast should be addressed to the appropriate Regional Pilotage Authority.

Atlantic Pilotage Authority,
Department of Transport,
Bank of Montreal Tower,
5151 George Street,
Halifax, Nova Scotia.
B3J 1M5

Pacific Pilotage Authority,
Department of Transport,
1200 W. Pender Street,
Vancouver, B.C.
V6E 2T9

Marine Emergencies

This agency is responsible for contingency plans; and for the development, testing, acquisition and allocation of certain pollution clean up equipment. It provides co-ordination and assistance when a federal response is made to combat a spill of oil or toxic materials into the marine environment. The response is made under the federal marine contingency plan or, in the case of international boundary waters, the appropriate joint international plan.

Clean-up equipment has been placed at strategic locations throughout the country to fulfill this responsibility and on-scene commanders are designated for each of the areas concerned.

Further information and assistance may be obtained from:

Senior Marine Officer,
Coast Guard Emergencies,
Department of Transport,
Ottawa, Ontario.
K1A 0N7

Name: M. S. Greenham
Phone: (613) 992-9743
or (613) 992-9210

DEPARTMENT OF COMMUNICATIONS

Telecommunication Regulatory Service

The responsibilities of this agency include the development of technical standards, the selection and coordination of radio frequencies, and the licensing of all classes of radio stations except broadcasting.

An operator contemplating the use of radio communications in his offshore activities should make application for licensing of any radio station in Canada or on board any Canadian vessel involved at least six weeks before the proposed in-service date of the communication facility. Details as to the licensing requirements and the necessary application forms may be obtained from any of the following regional offices of Communications:

Chief of Operations,
Atlantic Region,
Terminal Plaza Bldg.,
1222 Main Street,
Moncton, New Brunswick.

Name: J. R. R. Valiquette
Phone: (506) 858-2397

Chief of Operations,
Quebec Region,
2085 Union Avenue,
20th Floor,
Montreal, Quebec.
H3A 2C3

Name: J. E. T. Foucault
Phone: (514) 283-7046

Director of Operations,
Ontario Region,
55 St. Clair Avenue East,
9th Floor,
Toronto, Ontario.
M4T 1M2

Name: L. I. Greenwood
Phone: (416) 966-6265

Manager of Operations,
Central Region,
2300 One Lombard Place,
Winnipeg, Manitoba.
R3B 2Z8

Name: E. R. Shea
Phone: (204) 985-4395

Director of Operations,
Pacific Region,
Room 320,
325 Granville Street,
Vancouver 2, British Columbia.

Name: D. T. Black
Phone: (604) 666-3398

If need be, the following in Ottawa may be contacted for assistance:

Director-General,
Telecommunication Regulatory Service,
Department of Communications,
Ottawa, Ontario.
K1A 0C8

Name: J. de Mercado
Phone: (613) 996-2453

Advice in determining communication requirements and the necessary applications for license may also be obtained from:

Director,
Operations Branch,
Telecommunication Regulatory Service,
Department of Communications,
Ottawa, Ontario.
K1A 0C8

Name: W. W. Scott
Phone: (613) 992-8061

DEPARTMENT OF MANPOWER AND IMMIGRATION

Canada Immigration Division

This agency is concerned with the entry of all persons into Canada or Canadian waters and the employment of personnel therein other than citizens or permanent residents of Canada. Operators anticipating the employment of personnel therein must have a prior clearance and a request for such clearance should be made at least 60 days in advance of operations. Requests for information or clearance should be directed to:

Director-General,
Recruitment and Selection Branch,
Canada Immigration Division,
Department of Manpower and Immigration,
Ottawa, Ontario.
K1A 0J9

Name: W. K. Bell
Phone: (613) 996-3103

DEPARTMENT OF INDUSTRY, TRADE AND COMMERCE

Aerospace, Marine and Rail Branch

A major objective of the Department of Industry, Trade and Commerce is to encourage Canadian participation in the development, manufacture and supply of equipment and techniques for exploration and development of Canada's offshore mineral resources. Activities include the provision of shipbuilding subsidies and financial assistance for research and development of marine equipment.

Inquiries should be directed to:

Chief,
Marine Division,
Aerospace, Marine and Rail Branch,
Department of Industry, Trade and Commerce,
Ottawa, Ontario.
K1A 0H5

Name: M. J. Colpitts
Phone: (613) 992-0285

CANADIAN TRANSPORT COMMISSION

Water Transport Committee

A foreign vessel wishing to engage in offshore exploration work in Canadian waters must first obtain permission from the Department of National Revenue, Customs and Excise. Upon receipt of an application for permission to undertake exploration work, Headquarters Operations Customs request the Water Transport Committee of the Canadian Transport Commission to ascertain whether a suitable Canadian-flag vessel is available to do this work. Only in cases where the Water Transport Committee advises that no suitable Canadian vessel is available do Headquarters Operations Customs grant permission to the foreign vessel.

For further information contact:

Acting Chief,
Coastal Shipping Division,
Water Transport Committee,
Canadian Transport Commission,
Ottawa, Ontario.
K1A 0N9

Name: A. Coté
Phone: (613) 993-4261

Section C

This section refers to those agencies in the federal government that are in a position to provide specialized scientific information that may be of benefit to offshore operators.

DEPARTMENT OF ENERGY, MINES AND RESOURCES

Geological Survey of Canada

The Geological Survey of Canada carries out systematic geological and geophysical surveys in the sedimentary basins of Canada, including subsurface studies of well cuttings and cores. These sedimentary areas include parts of the regions offshore from the East, West and Northern Coasts, the Arctic Islands and Hudson Bay.

Research units located in Dartmouth, Calgary and Vancouver are concerned with studies of marine, surficial and subsurface geology, and geophysics. The units at Dartmouth and Calgary conduct micropaleontological, palynological, sedimentological and geochemical studies. Micropaleontological studies are conducted in Vancouver and all units carry out stratigraphic studies both on and offshore.

Requests for general information, publications and the like should be made to:

Director-General,
Geological Survey of Canada,
Department of Energy, Mines and Resources,
Ottawa, Ontario.
K1A 0E8

Name: D. J. McLaren
Phone: (613) 994-5817

Requests for information pertaining to the Atlantic continental margin and Hudson Bay should be made to:

Director,
Atlantic Geoscience Centre,
Department of Energy, Mines and Resources,
Bedford Institute of Oceanography,
P.O. Box 1006,
Dartmouth, Nova Scotia.
B2Y 4A2

Phone: (902) 426-2367

Requests for information pertaining to the Arctic continental margin should be made to:

Director,
Institute of Sedimentary and Petroleum Geology,
Geological Survey of Canada,
Department of Energy, Mines and Resources,
3303-33rd Street N.W.,
Calgary, Alberta.
T2L 2A7

Name: D. F. Stott
Phone: (403) 284-0110

Requests for information pertaining to the Pacific continental margin should be made to:

Geological Survey of Canada,
Department of Energy, Mines and Resources,
6th Floor, Sun Building,
Vancouver, British Columbia.
V6B 1R8

Attention: H. Gabrielse
Phone: (604) 666-1529

Earth Physics Branch

The Earth Physics Branch is involved in offshore geophysical studies including gravity surveys, heat flow surveys, crustal seismic surveys, earthquake seismology and airborne three-component magnetometer surveys.

Requests for general information, publications and enquiries with regard to the work of this agency should be made to:

Director-General,
Earth Physics Branch,
Department of Energy, Mines and Resources,
Ottawa, Ontario.
K1A 0Y3

Name: K. Whitham
Phone: (613) 994-5253

Polar Continental Shelf Project

The Polar Continental Shelf Project is a continuing, multi-disciplinary investigation of the continental shelf fringing the Arctic coast of Canada, together with adjacent parts of the Arctic Ocean basin, the islands of the Canadian Arctic Archipelago and the waters between them, and other areas that may be of special interest.

Enquiries regarding surveys and scientific studies in Arctic areas may be directed to:

Director,
Polar Continental Shelf Project,
Department of Energy, Mines and Resources,
Ottawa, Ontario.
K1A 0E8

Name: G. D. Hobson
Phone: (613) 996-3388

Surveys and Mapping Branch

Topographic maps, indexes, charts, atlases and numerous other map publications of Canada may be obtained from:

Canada Map Office,
Surveys and Mapping Branch,
Department of Energy, Mines and Resources,
Ottawa, Ontario.
K1A 0E9

Attention: G. A. Clemmer
Phone: (613) 994-9663

Air photographs covering all portions of Canada may be obtained from:

National Air Photo Library,
Surveys and Mapping Branch,
Department of Energy, Mines and Resources,
Ottawa, Ontario.
K1A 0E9

Attention: P. Andrews
Phone: (613) 994-5457

DEPARTMENT OF FISHERIES AND THE ENVIRONMENT

Ocean and Aquatic Sciences

Marine science information concerning bathymetry, tides, physical oceanography, and charts of Canadian coastal waters is available from:

Assistant Deputy Minister,
Ocean and Aquatic Sciences,
Department of Fisheries and the Environment,
Ottawa, Ontario.
K1A 0H3

Name: A. E. Collin
Phone: (613) 995-2197

Canadian Hydrographic Service

Hydrographic information may be obtained from:

Dominion Hydrographer,
Canadian Hydrographic Service,
Fisheries and Marine Services,
Department of Fisheries and the Environment,
Ottawa, Ontario.
K1A 0H3

Name: G. N. Ewing
Phone: (613) 994-5835

Information on hydrographic surveys off the West Coast and in the western Arctic regions may also be obtained from:

Regional Hydrographer,
Canadian Hydrographic Service,
Department of Fisheries and the Environment,
512 Federal Building,
Victoria, British Columbia.

Name: M. Bolton
Phone: (604) 388-3188

Information on hydrographic surveys in the eastern Arctic and off Canada's East Coast may be obtained from:

Regional Hydrographer,
Canadian Hydrographic Service,
Atlantic Oceanographic Laboratory,
Department of Fisheries and the Environment,
Bedford Institute of Oceanography,
Dartmouth, Nova Scotia.
B2Y 4A2

Name: R. C. Melanson
Phone: (902) 426-3497

The Canadian Hydrographic Service also provides information concerning authorized chart dealers at major seaports who stock charts and publications in demand in their districts.

Oceanography Branch

Information on waves, tides, water levels and oceanographic data may be obtained from:

Director,
Oceanography Branch,
Department of Fisheries and the Environment,
Ottawa, Ontario.
K1A 0E6

Name: N. J. Campbell
Phone: (613) 995-2039

Bedford Institute of Oceanography

Research and survey operations are conducted from two laboratories, the Atlantic Oceanographic Laboratory and the Marine Ecology Laboratory, both located at the Bedford Institute of Oceanography. The Atlantic Oceanographic Laboratory carries out research in chemical and physical oceanography, and undertakes the development of new oceanographic equipment. It is also responsible for hydrographic surveys off Canada's East Coast and in the eastern Canadian Arctic. Research in the Marine Ecology Laboratory is aimed at studying the biological processes underlying fisheries production and their relationships to the physical environment. In addition, the majority of the services required to carry out the scientific research and surveys of the Bedford Institute of Oceanography, such as ships and engineering services, are organized in a central group known as Institute Facilities, which is also part of Ocean and Aquatic Sciences, Atlantic Region. Requests for information pertaining to the work of the region should be made to:

Director-General,
Ocean and Aquatic Sciences, Atlantic Region,
Department of Fisheries and the Environment,
Bedford Institute of Oceanography,
P. O. Box 1006,
Dartmouth, Nova Scotia.
B2Y 4A2

Name: Wm. L. Ford
Phone: (902) 426-3492

The Institute of Ocean Sciences

The Institute of Ocean Sciences, Patricia Bay, performs on the West Coast of Canada functions analogous to those of the Atlantic Oceanographic Laboratory on the East Coast. In addition to its oceanographic and hydrographic expertise, IOS has developed a high degree of capability in working in the ice covered waters of the High Arctic and the Beaufort Sea.

Requests for information may be obtained from:

Director-General,
Ocean and Aquatic Sciences,
Department of Fisheries and the Environment,
Institute of Ocean Sciences, Patricia Bay,
Victoria, British Columbia.
V8W 1Y4

Name: R. W. Stewart
Phone: (604) 388-3383

Fisheries Resource Services

The Fisheries and Marine Service has three fisheries research stations on the East Coast of Canada, in addition to two on the West Coast, and operates vessels which carry out regular cruises. The Arctic Biological Station has information pertinent to Hudson Bay. Information on fisheries research work may be obtained from:

A/Director-General,
Resource Services Directorate,
Fisheries Management,
Fisheries and Marine Service,
Department of Fisheries and the Environment,
Ottawa, Ontario.
K1A 0H3

Name: A. W. May
Phone: (613) 995-2205

Specific regional information is available from:

Director-General,
Fisheries and Marine Service,
Department of Fisheries and the Environment,
P.O. Box 5667,
St. John's, Newfoundland.
A1C 5X1

Name: L. J. Cowley
Phone: (709) 737-4419

Director-General,
Fisheries Management,
Fisheries and Marine Service,
Department of Fisheries and the Environment,
P.O. Box 550,
Halifax, Nova Scotia.
B3J 2S7

Name: H. D. Johnston
Phone: (902) 426-2581

Director-General,
Fisheries Management,
Fisheries and Marine Service,
Department of Fisheries and the Environment,
1090 West Pender Street,
Vancouver, B.C.
V6E 2N9

Name: G. H. Geen
Phone: (604) 544-6097

Atmospheric Environment Service

Requests for information on meteorological and sea-ice data, climatology, weather forecasting, meteorological instruments and research may be directed to:

Assistant Deputy Minister,
Atmospheric Environment Service,
Department of Fisheries and the Environment,
4905 Dufferin Street,
Downsview, Ontario.
M3H 5T4

Name: W. L. Godson
Phone: (416) 667-4760

Where requests are of a regional nature concerning the West Coast, Hudson Bay and the East Coast they may be directed to the respective regional offices as follows:

Director, Pacific Region,
Atmospheric Environment Service,
739 West Hastings Street,
Vancouver, B. C.
V6C 1A1

Name: J. R. Mathieson
Phone: (604) 666-1901

Director, Central Region,
Atmospheric Environment Service,
6th Floor, 185 Carlton Street,
Winnipeg, Manitoba.
R3C 3J1

Name: J. J. Labelle
Phone: (204) 985-4380

Director, Atlantic Region,
Atmospheric Environment Service,
P.O. Box 5000,
Bedford, N.S.
B0N 1B0

Name: J. A. W. McCulloch
Phone: (902) 835-9328

Part II

SUPPLEMENTAL INFORMATION FOR OFFSHORE OPERATORS

LICENCE, PERMIT AND LEASE ADMINISTRATION

Canada's Mineral Rights Regime

The regulations under which the Department makes offshore oil and gas rights available for development are the *Canada Oil and Gas Land Regulations*, which apply to such rights in the Territories as well. They were promulgated under the *Public Lands Grants Act* and the *Territorial Lands Act*, and it is the former *Act* that gives statutory authority as concerns the Offshore.

Before undertaking exploration work of any kind in the Offshore, a party must first acquire an exploratory licence. A licence is non-exclusive and is renewable on an annual basis. A licence is necessary whether or not the party is already a permittee or lessee. It is in effect a 'hunting licence', since with it a party may apply to carry out exploration work in any region of the Offshore not restricted in some fashion, short of drilling a well, including areas held under permit by other parties. The concept here is to allow work throughout the Canadian Offshore and at the same time maintain control over all activities through operational and reporting requirements.

The second entity in the Canadian system is the exploration permit. A permit, in contrast to a licence, does involve certain exclusive rights. An authorization to drill a well within a permit area can normally be obtained only by the permittee, and only the permittee has the option of selecting oil and gas leases from a permit area. A permit normally covers a grid area or half-grid. A grid area south of latitude 70° North is delimited by lines of latitude 10 minutes apart and lines of longitude 15 minutes apart. North of latitude 70° North, a grid area is delimited by lines of latitude 10 minutes apart and lines of longitude 30 minutes apart. Grid areas vary in size due to convergence of meridians; for example they comprise less than 64,000 acres off the northern tip of Labrador and more than 95,000 acres south of Nova Scotia.

As described in more detail on page 29, new legislation has been proposed, and no new permits are currently being issued pursuant to the existing *Regulations*.

The emphasis at the permit stage is on exploration work, the discovery of oil and gas deposits. Offshore permits are valid for six years, with six renewals each of one year. The permittee must make a guaranty deposit at the time of application for a permit to the full amount of the work requirements for the first period as a surety

that the work will be carried out. Similarly, guaranty deposits must be made prior to each succeeding work period. Permit work requirements increase progressively so as to reflect the progressive increase in expenditures necessary to effectively evaluate an area, from relatively inexpensive reconnaissance work, through detailed geophysical surveys, to high-cost exploratory drilling operations. Guaranty deposits are returned upon receipt of satisfactory evidence that appropriate work has been performed—they are subject to forfeiture otherwise. Applications for return of guaranty deposits must be supported by appropriate reports and certified statements of expenditures.

The third entity in the Canadian system is the exploitation lease. Commercial production cannot be undertaken while acreage is still in permit form, it must first be converted to lease. It is at this stage that the emphasis is placed on direct revenues, primarily through royalties on production and annual rentals. A permittee may acquire leases covering up to half the area of a permit, with that portion not converted to lease reverting to the Crown.

There are certain 'Canadian participation provisions' that apply to the lease stage. In accordance with these provisions, for example, any individual wishing to obtain a lease must be a Canadian citizen, and any company wishing to obtain a lease must be incorporated in Canada. The *Regulations* stipulate further that the Minister must be satisfied with the opportunity Canadians have for participating in the financing and ownership of corporations involved in applications for leases.

Permit or lease acreage reverting to the Crown through expiry, cancellation or surrender, thereby becoming what is commonly termed Crown Reserves, may be re-issued as single permits or in blocks of permits by way of public tender, on either a cash bonus or a work bonus basis. Reverted acreage may also be re-issued in lease form through public tender—utilizing such methods as work bonus, cash bonus, cash bonus with an undertaking to drill a well—and the terms and conditions of such leases are as the Minister himself may determine.

The issuance of a Canada Oil and Gas Permit is a matter of discretion and not a mandatory sequel to the act of application. In accordance with the *Regulations* and long standing administrative procedure, accepting receipt of

an application for Canada Oil and Gas Permits does not in any way raise any rights that the permits involved will be issued and is not to be understood as implying an undertaking on the part of the government to issue permits covering the areas involved.

Guaranty Deposits—Promissory Notes

Promissory notes acceptable to the Chief may be used to meet the deposit requirements of oil and gas permits issued under the *Canada Oil and Gas Land Regulations* and of mineral claims issued under the *Canada Mining Regulations*. The procedures outlined below should be adequate for most cases, but if special circumstances arise, assistance may be obtained from the Resource Management and Conservation Branch, Department of Energy, Mines and Resources.

Promissory notes should be issued in amounts equal to the specific deposit requirements involved. All holdings to be covered by any one promissory note must have the same anniversary date and maturity or nearly so.

Where work bonus bids are involved a separate promissory note must be submitted in respect of each bid.

To be acceptable, a promissory note must be made payable to the Receiver General of Canada, approved for issue by a Canadian chartered bank, bear the corporate seal of the issuing company, and be guaranteed by a letter from the bank approving the note.

The bank letter of guaranty should contain statements to the effect that:

- on acceptance of the promissory note as a guaranty deposit, the Receiver General has the prerogative, if and when the note is presented for payment, to have the note endorsed on behalf of the Receiver General of Canada negating his liability; and
- the note is made payable at the main Ottawa branch of the bank involved.

The term of the bank letter of guaranty must cover the deposit period and the grace period at the end of the work period involved plus an additional 60 days in which to process the note in the event it has to be cashed. The expiry date of a letter of guaranty must therefore be no less than 150 days after the anniversary date in the case of oil and gas permits, and 60 days in the case of mineral claims. Letters of guaranty may be issued to cover individual promissory notes, or they may be

issued to cover all the notes submitted by a company for a specific period of time.

Where a permit is held jointly by more than one individual or company, and where one of the individuals or companies posts deposits on behalf of one or more of the registered holders covering all or part of the guaranty deposit requirements, the deposits will be used to satisfy the full liability of the permittees concerned in the event of default or violation under the *Canada Oil and Gas Land Regulations* resulting in the forfeiture of the guaranty deposits. A formally executed letter acknowledging such liability is required.

Where a registered operator who does not have a registered interest in the permits wishes to place deposits on behalf of the registered permittees, his deposits will not be accepted unless he has first submitted a formally executed letter acknowledging his liability and consenting to the use of the deposits to satisfy the full liability of the permittees concerned in the event of default or violation under the *Canada Oil and Gas Land Regulations* resulting in the forfeiture of the guaranty deposits.

Guaranty Deposits—Government Bonds

Bonds guaranteed by the Government of Canada to fulfill guaranty deposits set out in the *Canada Oil and Gas Land Regulations* are accepted by the Department of Energy, Mines and Resources only at market value. Permittees depositing such bonds in accordance with the *Regulations* will be required to maintain these deposits at a market value not less than the deposit requirements set out in the *Regulations*. With respect to deposits made pursuant to the provisions of the *Canada Mining Regulations*, bonds guaranteed by a province are also acceptable under the conditions set forth above respecting deposits made pursuant to the *Canada Oil and Gas Land Regulations*.

Where matured bond coupons are considered by the Chief to be surplus to the guaranty deposit requirements of the period concerned, they may be returned to the depositor on request.

Carry Forward of Under-expenditures

A notice requesting the carry forward of under-expenditures into the next period must be submitted pursuant to the *Regulations* prior to the end of the current period. The notice must include the reasons for failure to make the expenditures, and express the permittee's intention to undertake expenditures during the next period in an

amount equal to the aggregate of the underexpenditure plus the work requirement of the next period.

Appointment of Operator

Where there are joint registered permittees, it is required that one person be appointed the operator for the permits. Such appointments must either bear the corporate seal of all permittees involved or be formally executed by persons for whom a Power of Attorney has been placed with the Resource Management and Conservation Branch. The use of this procedure acknowledges the assignment by the permittees of their authority and responsibilities to the operator, as well as the acceptance of such responsibility by the operator.

When an operatorship is to be ended, a letter of notification of termination must be submitted in the same manner in which the appointment was made. If the permits continue to be jointly held, the appointment of a replacement operator must be made at the same time.

Where a Notice of Surrender is submitted by an operator, such Notice must be formally confirmed by all the registered permittee(s) involved.

Confirmation of Accounts

Confirmation by the Resource Management and Conservation Branch of such confidential information as the amount and type of guaranty deposits held in permit accounts, the amount of approved work credits, and the amount of outstanding work obligations, cannot be provided except to the registered permittee or to a person specifically authorized by the permittee to receive such information.

Transfer of Permits

Canada Oil and Gas Permits may be transferred in whole or in part between two or more permittees upon approval by the Chief and in accordance with the requirements set out by the *Canada Oil and Gas Land Regulations*.

All permits must be in good standing before they may be transferred. All transferees must meet the requirements of permittee eligibility as specified in the *Regulations*. The transfer document must include the incorporation details and the addresses for service of each transferee, and be executed under corporate seal of each company or be accompanied by an affidavit of

execution. Where transfers are being made to joint transferees the undivided interest to be held by each permittee must be specified.

If there is more than one transferee, an operator must be appointed under joint corporate seals and such operator must formally accept the liability of operatorship.

Transfer fees of \$25.00 per permit for each original transfer document must accompany the request, the cheque to be made payable to the Receiver General of Canada.

Cash or bonds being held by this Department as guaranty deposits against work requirements may be transferred with the permits, if so specified in the transfer document. Promissory notes on deposit are not transferable unless the depositor continues to hold a registered interest in the permits or is appointed as operator. If deposits are not transferable, the transferee(s) or the appointed operator must submit replacement deposits in sufficient amount to maintain the permits in good standing to the end of the current period. These deposits must be received before the transfer can be registered.

The relative permit documents must accompany the transfer request for endorsement of the transfer registration.

No transfer of an oil and gas permit or lease shall pass any interest in a permit or lease until the transfer is registered in accordance with the *Regulations*, which registration must be approved by the Chief.

Statements of Expenditure

Information on the preparation of audited statements of Expenditure is obtainable from the office of the Chief, Mineral Rights Division.

Geophysical Processing and Interpretation Costs

Expenditures incurred in computer processing and the interpretation of geophysical data acquired in the course of exploration activities involving Canada lands will not be considered eligible for approval as allowable expenditures unless such processing and interpretation has been carried out in Canada.

An operator, submitting a claim, pursuant to the *Canada Oil and Gas Land Regulations*, for allowable expenditures involving geophysical operations undertaken on Canada

Lands should identify on his statement of expenditures the name of the company or companies involved together with the location of: (a) the computer facilities used to process the geophysical data; and (b) the offices where the geophysical data was interpreted. Expenditures incurred for computer processing should be separately identified and not included as part of the costs incurred for interpretation.

Geophysical data processed on board non-Canadian seismic ships will be considered to be work undertaken outside Canada and not eligible for approval as allowable expenditures.

Proposed New Legislation

On May 19, 1976 the Minister of Energy, Mines and Resources made public a "*Statement of Policy on a Proposed Petroleum and National Gas Act and New Canada Oil and Gas Land Regulations*." The new *Act* will authorize regulations that impact on present contractual obligations. These will include provisions designed to accelerate oil and gas activity, including:

- (1) Marked increase in work obligations for existing permits in most areas;
- (2) Issuance of production rights only upon the commencement of production, and for shorter periods of time;
- (3) An option for Petro-Canada to acquire a working interest of up to 25% in any existing grant for which a special-renewal permit is granted or in any provisional lease issued before a discovery has been made;
- (4) A guideline of 25% as the minimum level of Canadian participation in production licences and for provisional leases when a discovery has been made, below which the Minister may not wish to issue such a lease or licence;
- (5) Authorizing the administering authority to order the commencement and continuation of production;
- (6) Authorizing the Minister to stipulate the posted price of oil and gas production, on the basis of fair market value at fieldgate or extraction plant;
- (7) Authorizing the Government to take its royalty in production or in cash;

- (8) Requiring permittees, lessees and licencees to submit to the administering authority copies of contracts and agreements that:
 - (a) transfer any interests; or
 - (b) create oil and gas supply arrangements; and, make provision for possible Ministerial approval of farmouts;
- (9) Providing for shorter confidential periods for proprietary information i.e. geophysical, geological, feasibility, environmental;
- (10) Authorizing the Minister to order exploration drilling on a specified prospect within a reasonable time;
- (11) Broadening the Minister's authority in ordering development drilling of discovered reserves;
- (12) Making administrative and operational conditions subject to amendment of the *Regulations* from time to time;
- (13) Providing for the issuance of Crown Reserves (acreage not covered at present by permit or lease, or which reverts to the Crown upon surrender of existing permits and leases) in the form of:
 - (a) Exploration agreements and production licences upon such terms and conditions as may be stipulated by the Minister in a Notice of Sale; or
 - (b) In the case of direct issuance without public tender, upon such terms and conditions as may be stipulated by the Governor-in-Council.

It is intended that those sections of the existing *Canada Oil and Gas Land Regulations* that are not involved in or are not inconsistent with the Statement of Policy nor with operational and conservation measures covered under other legislation, will be retained in their intent in the new *Regulations*.

New levels of work obligation will commence on the anniversary date next following one year from the date of the announcement or on promulgation, whichever comes last. The phasing in and implementation of those other elements of the proposed new *Regulations* that impact on existing permits and leases will be made effective as of the date of their promulgation.



East Coast ☐
Hudson Bay — Hudson Strait ☐
West Coast ☐

DEPARTMENT OF ENERGY, MINES AND RESOURCES
RESOURCE MANAGEMENT AND CONSERVATION BRANCH
OPERATIONS AND CONSERVATION DIVISION

Offshore Program Notice

This Notice is submitted in compliance with Section 52 of the "Canada Oil and Gas Land Regulations"

General Information

Exploratory Licence No: Held by:
Permits or leases with group nos.
.....
Off-permit or off-lease areas involved:
.....
Permits to which expenditures are to be applied:
.....
.....

Operational Data

Date of commencement: Approx. duration:
Estimated cost: On-permit Off-permit
Type of work
.....
Equipment & no. of persons to be employed; including name of vessel:
.....
.....
Prime Contractor: Phone:
Address:
.....
Other Information: (use back of form if required)
.....
Signed: Title:
Date: Company:

Notes

1. A separate Notice should be submitted in triplicate for each program or survey 45 days prior to the commencement of work. This Notice covers all types of operations except drilling. It should be accompanied by 3 copies of a map showing the permit area concerned and the proposed lines to be run.
2. All Notice should be addressed to Director, Resource Management and Conservation Branch Department of Energy, Mines and Resources, Ottawa. One copy will be returned to the Company.
3. Certain other Government agencies must be informed of this program prior to its commencement and of any significant changes to it. The requirements and services of the Federal agencies concerned are outlined in the booklet "Offshore Exploration Information & Procedures".
4. The Project Number, which is assigned upon approval, should be used to identify the program in all subsequent references.

Approval

OPERATIONS AND CONSERVATION DIVISION

Project No.



East Coast ☐
Hudson Bay – Hudson Strait ☐
West Coast ☐

DEPARTMENT OF ENERGY, MINES AND RESOURCES
RESOURCE MANAGEMENT AND CONSERVATION BRANCH
OPERATIONS AND CONSERVATION DIVISION

Offshore Drilling Notice

This Notice is submitted in compliance with Section 52 of the "Canada Oil and Gas Land Regulations". Its approval constitutes the requisite authority to commence drilling operations under Section 4 of the "Canada Oil and Gas Drilling and Production Regulations".

Well Information

Well Name in full:
Operator: Exploratory Licence No.:
Contractor: Permit or Lease No.:
Drilling Rig or Unit: Estimated Well Cost:
Location: Unit: Section: Grid Area:
Coordinates: Lat. Long.
Elevation: RT/KB. Water Depth:
Approx. Spud Date: Estimated Time on Location:
Anticipated Total Depth:
Potentially Productive Intervals:

Age	Name	Lithology	Top	Thickness
.....
.....
.....
.....

Casing and Cement Program:

Name of String:	O.D	Weight/Ft.	Grade	Setting Depth below seafloor	Cement Program
.....
.....
.....
.....

B.O.P. Equipment:

.....

AAPG Well Classification:

Other Information:
New-field wildcat <input type="checkbox"/>
New-pool wildcat <input type="checkbox"/>
Shallow-pool test <input type="checkbox"/>
Deeper-pool test <input type="checkbox"/>
Outpost well <input type="checkbox"/>
Development well <input type="checkbox"/>

Signed: Title:

Date: Company:

Notes

Five copies of this Notice and tentative survey plan should be submitted for each well. Other requirements and procedures are given in the information circular "Offshore Exploratory Drilling".
All Notices should be addressed to the Director, Resource Management and Conservation Branch, Department of Energy, Mines and Resources, Ottawa. One copy will be returned to the Company.

Approval

OPERATIONS AND CONSERVATION DIVISION

Drilling Authority: Project No.

SECURITY AND VISIT CLEARANCES FOR INDUSTRY PERSONNEL

Security Clearances

Approval must be obtained for all offshore exploration programs from the appropriate Office of the Maritime Commander, Department of National Defence, before work can commence. Programs off the East Coast, in Hudson Bay and in Arctic waters east of longitude 141° West, are the concern of the Commander, Maritime Command, Halifax; those off the West Coast are the concern of the Commander, Maritime Forces Pacific, Victoria. Addresses and further details are given in Section A.

Before an operator obtains approval for a proposed program from the Department of National Defence, representatives of the operators may have to discuss operational details of the program with staff officers of Maritime Command.

Security clearance is not essential. On the other hand, bona-fide operators with extensive or long-term exploration programs may nominate one or two persons to facilitate any discussions with Maritime Command. The number of security-cleared personnel may exceed two if this can be justified. The Resource Management and Conservation Branch, at the request of the Department of National Defence, monitors the applications for Security Clearance.

Industry representatives without security clearance are allowed to conduct unclassified briefings with staff officers of Maritime Command if the respective Maritime Commander is provided with 10 to 14 days prior notice of any proposed discussions.

A representative nominated for security clearance by an operator should complete a Personal History Form and send same to the Director, Resource Management and Conservation Branch, Department of Energy, Mines and Resources, Ottawa K1A 0E4. Copies of the Personal History Form (DND 450) are available from this Branch. The operator will be notified by the Branch as soon as the application has been processed. Processing may take in the order of three months, and operators should take this into account when planning offshore activities. It usually takes less time for a Canadian citizen to obtain security clearance.

A security clearance is valid for five years, and may be renewed by resubmitting a Personal History Form. A change in employment or lapse of the five-year period invalidates a security clearance.

Please note that the term "clearance" should be used when referring to personnel, whereas the term "approval" should be used in connection with exploration programs.

Visit Clearance Requests

The procedures whereby security-cleared representatives of industry may meet with staff officers of Maritime Command have been standardized and simplified. They involve the use of Visit Clearance Request forms which are available from the Security Services Branch, Department of Supply and Services, Ottawa.

Security-cleared representatives should submit these Visit Clearance Requests direct to the Department of Supply and Services in Ottawa. It is advisable to request that the visit period be for six months, the maximum allowed. This enables representatives to contact Maritime Command directly at any time during the six-month period for discussions without the necessity of referring back to the Department of Supply and Services prior to each visit. The names of all security-cleared employees in one company may be shown on one Visit Clearance Request. Also, it is suggested that the request be re-submitted at the end of five months for renewal purposes.

As stated in Section A, the Office of the Commander, Maritime Command, should be given 45 days advance notice in writing of any exploration program, and approval must be obtained from the Department of National Defence before the commencement of work.

SELECTED PUBLICATIONS

Maps and Charts

The following maps may be obtained by writing to the Resource Management and Conservation Branch, Department of Energy, Mines and Resources, Ottawa, Ontario. K1A 0E4.

Map No. 100	West Coast.....1":16 miles
Map No. 150	East Coast.....1":25 miles
Map No. 151	Labrador Sea and Hudson Strait.....1":25 miles
Map No. 200	Hudson Bay.....1":25 miles

These are official maps showing the distribution of offshore Canadian oil and gas permits, and are revised to the date of mailing. An index is provided free of charge for use with the maps indicating the location of each permit, the name of the permittee, the date of issue and the acreage involved. The price of each map is \$3.00, which includes the cost of mailing.

Smaller, page-sized permit maps, shown in Part II, are also available upon request. They are updated periodically and normally distributed free of charge.

Maps showing permits in the Territories and waters of the High Arctic are available from the Northern Non-Renewable Resources Branch, Department of Indian Affairs and Northern Development. For more information see Part I, Section A.

Maps and base maps showing Canada oil and gas permit acreage are also available commercially from:

Nickle Map Service Ltd.,
330 - 9th Avenue S.W.,
Calgary, Alberta.
T2P 1K7
Phone: (403) 269-7971

or from:

Field Title Service,
400 Three Calgary Place,
Calgary, Alberta.
T2P 0J1
Phone: (403) 263-3750

For maps and charts available from Surveys and Mapping Branch, Department of Energy, Mines and Resources or the Canadian Hydrographic Service, Department of Fisheries and the Environment, see Part 1, Section C.

Other Publications

There are a number of other complimentary publications and papers available from Resource Management and Conservation Branch, Department of Energy, Mines and Resources. They include the quarterly *Offshore Report* which provides general information on the activities of the oil and gas industry off Canada's East and West Coasts and in the Hudson Bay and Hudson Strait regions; *Offshore Oil and Gas Permits*; and *Resources Under the Sea*.

Surveying Offshore Canada Lands for Mineral Resource Development, October 1975. Prepared by the Workshop on Offshore Surveys. Available from the Canada Map Office, Surveys and Mapping Branch, Department of Energy, Mines and Resources, Ottawa. K1A 0E9.
\$6.00-Canada, \$7.20-other countries.

Federal Legislation

Copies of federal acts and regulations, including those listed below, may be obtained by writing to:

Printing and Publishing
Supply and Services
Ottawa, Ontario K1A 0S9

- *Oil and Gas Production and Conservation Act*
- *Public Lands Grants Act*
- *Territorial Lands Act*
- *Canada Oil and Gas Land Regulations*
- *Oil and Gas Land Orders*
- *Canada Oil and Gas Drilling and Production Regulations*
- *Canada Mining Regulations*
- *Public Lands Oil and Gas Regulations*
- *Public Lands Mineral Regulations*
- *Arctic Waters Pollution Prevention Act*
- *Arctic Waters Pollution Prevention Regulations*
- *Canada Shipping Act*

The *Oil and Gas Production and Conservation Act* applies to Canada lands in the Offshore, as well as to Canada lands in the Yukon and Northwest Territories. The *Act* provides for comprehensive statutory authority for controlling all offshore oil and gas activities, including the safety of personnel, the conservation of resources and the prevention of waste and pollution. The *Act's* broad authority includes regulation of the exploration, drilling,

production, conservation, measuring, gathering, storage, processing, distribution, transmission and other handling of oil and gas.

The disposition of oil and gas rights underlying Canada Lands is provided for by the *Canada Oil and Gas Land Regulations*, which were promulgated under the *Public Lands Grants Act* and the *Territorial Lands Act*. It is the former *Act* that provides the statutory authority for the application of these *Regulations* to the Offshore. Copies of both *Acts* are included in the Office Consolidation of the *Regulations* listed above.

Information on the proposed *Petroleum and Natural Gas Act* and the new *Canada Oil and Gas Land Regulations* is given in this publication on page 29.

Commercial Publications

In addition to the permit maps already referred to a number of other publications of interest to offshore operators are commercially available. These include:

- Nickle's Daily Oil Bulletin, and
- Nickle's Canadian Oil Register,
330-9th Avenue S.W.,
Calgary, Alberta.
T2P 1K7
Phone: (403) 269-3161
- Oilweek,
200, 918-6th Avenue S.W.,
Calgary, Alberta.
T2P 0V5
Phone: (403) 266-5621
- Canadian Petroleum,
Corpus Publishers,
6 Crescent Road,
Toronto, Ontario.
M4W 1T1
Phone: (416) 920-8560

AVAILABILITY OF REPORTS AND WELL MATERIALS

Under the *Canada Oil and Gas Land Regulations* an operator is required to submit comprehensive reports on every program undertaken in connection with the permittee's offshore acreage. These reports, together with associated items such as cores, cuttings and paleontological materials derived from drilling operations, are held strictly confidential for the requisite period, and then made available for public examination.

Information submitted by a company can only become available prior to its release from confidential status with the written consent of the company. Certain general data may be released at any time. Well history reports, well logs and associated materials from an exploratory well may be released two years after the rig release date, and information on a development well may normally be released in 30 days.

Reports submitted to the Resource Management and Conservation Branch, Department of Energy, Mines and Resources under the *Canada Oil and Gas Land Regulations*, and subsequently released from confidential status, are available for examination on an open-file basis at three centres across Canada, namely:

Resource Management and Conservation Branch,
Department of Energy, Mines and Resources,
Ottawa, Ontario.
K1A 0E4

Attention: S. A. MacInnis
Phone: (613) 995-9351

Resource Management and Conservation Branch,
Department of Energy, Mines and Resources,
Bedford Institute of Oceanography,
Dartmouth, Nova Scotia.
B2Y 4A2

Attention: T. Dexter
Phone: (902) 426-3179

Library,
Institute of Sedimentary and Petroleum Geology,
Department of Energy, Mines and Resources,
Calgary, Alberta.
T2L 2A7

Attention: Energy Subdivision
Phone: (403) 284-0110

Cores, cuttings, paleontological and other materials from wells drilled off Canada's East Coast, and in Hudson Bay and Hudson Strait, that are available for examination may be seen by appointment at:

Resource Management and Conservation Branch,
Department of Energy, Mines and Resources,
Bedford Institute of Oceanography,
Dartmouth, Nova Scotia.
B2Y 4A2

Attention: G. D. Karg
Phone: (902) 426-2525

Cores, cuttings, paleontological and other materials from wells drilled off Canada's West Coast, in addition to suites of washed cuttings from wells drilled off the East Coast and in Hudson Bay and Hudson Strait, that are available for examination may be seen by appointment at:

Institute of Sedimentary and Petroleum Geology,
Geological Survey of Canada,
Department of Energy, Mines and Resources,
3303-33rd Street,
Calgary, Alberta.
T2L 2A7

Attention: Energy Subdivision
Phone: (403) 284-0110

The availability of reports and well materials relating to operations in the North under the administration of the Department of Indian Affairs and Northern Development are referred to in Part I, of this publication.

Well History reports, and well logs available in hard copy, microfilm and in digital form, may be purchased after expiry of the confidential period from:

Riley's Datashare International Ltd.,
P.O. Box 6730, Station D,
Calgary, Alberta.
T2P 2N8

Phone: (403) 265-7800

Commercial reproductions of many reports may be purchased on a demand basis after the expiry of the confidential period from:

West Canadian Graphic Industries Ltd.,
810 Fifth Avenue S.W.,
Calgary, Alberta.
T2P 0N5

Phone: (403) 263-2555

Under the proposed new land *Regulations*, as discussed elsewhere in this publication, geological and geophysical reports will normally become available five years after completion of the work involved.

AVAILABLE REPORTS

Wells

Well reports are submitted by operators to the Resource Management and Conservation Branch, Department of Energy, Mines and Resources, under the *Canada Oil and Gas Land Regulations*. Information on exploratory wells may be released by the Branch at the end of the two-year confidential period stipulated in the *Regulations*. The availability of reports and well materials, and a tabulation of general data on all offshore wells drilled to date is given elsewhere.

Information and materials on the 1965 corehole drilling programs on the Grand Banks and in the Gulf of St. Lawrence by Pan American Petroleum Corporation and on the Scotian Shelf by Mobil Oil Canada Ltd. have been released from confidential status, as have information and materials on the following exploratory wells in the Canadian Offshore:

West Coast Offshore

Shell Anglo Prometheus H-68
Shell Anglo Pluto I-87
Shell Anglo Zeus I-65
Shell Anglo Zeus D-14
Shell Anglo Tyee N-39
Shell Anglo Sockeye B-10
Shell Anglo Sockeye E-66
Shell Anglo Auklet G-41
Shell Anglo Osprey D-36
Shell Anglo Harlequin D-86
Shell Anglo Apollo J-14
Shell Anglo Cygnet J-100
Shell Anglo South Coho I-74
Shell Anglo Murrelet L-15

Hudson Bay and Hudson Strait

Aquitaine et al Hudson Walrus A-71
Aquitaine et al Polar Bear C-11
Aquitaine et al Narwhal South O-58
Premium-Homestead Akpatok Island F-26

East Coast Offshore

Pan Am-IOE Tors Cove D-52
Pan Am-IOE Grand Falls H-09
Mobil Sable Island C-67
Shell Onondaga E-84
Shell Oneida O-25
Shell Naskapi N-30
Shell Mic Mac J-77
Shell Mohawk B-93
Shell Abenaki L-57
Shell Missisauga H-54
HB-Fina Northumberland Strait F-25
HB-Fina East Point E-49
Shell Onondaga O-95
Shell Huron P-96
Shell Iroquois J-17
Shell Cree E-35
Shell Mic Mac H-86
Shell Wyandot E-53
Shell Argo F-38
Shell Fox I-22
Shell Abenaki J-56
Shell Erie D-26
Mobil-Tetco Esperanto K-78
Shell Crow F-52
Amoco-IOE Eider M-75
Shell Sauk A-57
Mobil-Tetco Dauntless D-35
Shell Chippewa L-75
Shell Onondaga F-75
Amoco-IOE Murre G-67

Tenneco et al Leif E-38
 Shell Triumph P-50
 Mobil-Tetco Sable Island E-48
 Shell Eurydice P-36
 Shell Chippewa G-67
 Elf Hermine E-94
 Amoco-IOE Puffin B-90
 Amoco-Imp Petrel A-62
 Mobil-Tetco Sable Island O-47
 Shell Mohican I-100
 Shell Marmora C-34
 Amoco-Imp Gannet O-54
 Shell Primrose N-50
 Amoco-Imp Shearwater J-20
 Shell-Mobil-Tetco Eagle D-21
 Amoco-Imp Bittern M-62
 Mobil-Tetco Sable Island 1-H-58 (1A-H-58)
 Amoco-Imp Kittiwake P-11
 Mobil-Tetco Thebaud P-84
 Amoco-Imp Heron H-73
 Amoco-Imp Jaeger A-49
 Amoco-Imp Cormorant N-83
 Mobil-Tetco Sable Island 2-H-58
 Mobil-Gulf Adolphus 1-K-41
 Shell Primrose A-41
 Amoco-Imp Gull F-72
 Amoco-Imp Merganser I-60
 Mobil-Gulf Adolphus 2-K-41
 Mobil-Tetco Sable Island 3-H-58
 Amoco-Imp-Skelly Tern A-68
 Mobil-Tetco Bluenose G-47
 Amoco-Imp-Skelly Mallard M-45
 Shell Primrose F-41
 Shell Marmora P-35
 Mobil-Tetco Sable Island 4-H-58
 Amoco-Imp-Skelly Razorbill F-54
 Shell Tuscarora D-61
 Mobil-Tetco Cohasset D-42
 Amoco-Imp-Skelly Sandpiper J-77
 Shell Amoco Cap Rouge F-52
 Amoco-Imp-Skelly Sandpiper 2-J-77
 Amoco-Imp Skelly Heron J-72
 Amoco-Imp-Skelly Osprey H-84
 Amoco-Imp-Skelly Egret K-36
 Eastcan et al Leif M-48
 Mobil-Tetco Sable Island 5-H-58
 Eastcan et al Bjarni H-81
 Shell-Soquip-Amoco Bradelle L-49
 Amoco-Imp-Skelly Spoonbill D-30
 Mobil-Tetco Sable Island 6-H-58
 Mobil-Gulf Flying Foam I-13
 Amoco-Imp-Skelly Pelican J-49

Amoco-Imp-Skelly Brant P-87
 Mobil-Gulf Bonnition H-32
 Elf et al Emerillon C-56
 Union et al Ojibwa E-07
 Amoco-Imp-Skelly Coot K-56
 Mobil-Tetco-Texaco Citnalta I-59
 Amoco-Imp-Skelly Twillick G-49
 Shell Demascota G-52
 Union et al Sambro I-29
 Amoco-Imp-Skelly Carey J-34
 Union et al Jason C-20
 Texaco-Shell Intrepid L-80
 Union et al Hercules G-15
 Amoco-Imp-Skelly Egret N-46
 Murphy et al North Sydney P-05
 Union et al Montagnais I-94
 Eastcan et al Gudrid H-55
 BP Columbia Bonavista C-99
 Amoco-Imp-Skelly Skua E-41
 Mobil-Gulf Dominion O-23

Information and materials on the exploratory wells listed below may be released during the course of 1977.

East Coast Offshore

Mobil-Gulf Adolphus D-50
 Amoco-Imp-Skelly Phalarope P-62
 Mobil-Tetco-Gulf Adventure F-80
 Mobil-Texaco Sachem D-76
 Eastcan et al Freydis B-87
 Eastcan et al Snorri J-90
 Mobil-Gulf-Imperial Cumberland B-55
 BP Columbia et al Indian Harbour M-52
 Eastcan et al Karlsefni A-13
 Eastcan et al Cartier D-70

GEOPHYSICAL AND GEOLOGICAL WORK

Geological and Geophysical Reports

Results of geological and geophysical surveys may be held confidential under the *Canada Oil and Gas Land Regulations* for up to 12 years or more. Under the proposed new land *Regulations* information on geological and geophysical surveys may be released from confidential status five years after the completion of the program or upon termination of rights, whichever is earlier.

Released Geological Reports

WEST COAST:

Atlantic Richfield Canada Ltd. 1961. *Underwater Geological Survey on Richfield's offshore acreage in the Hecate Strait*. Project: 8831-A9-1E.

Western Minerals Ltd. 1964. *Regional Geology and Petroleum Prospects of S. E. Vancouver Island*. Project: 8837-W7-1E.

HUDSON BAY AND HUDSON STRAIT REGION:

Transalta. 1967. *Geological Evaluation/Hudson Bay*. Project: 8737-T13-1E.

Sogepet Limited. 1962. *Stratigraphy and Petroleum Possibilities of the Northern Hudson Bay Lowland*. Project: 8730-S21-1E.

Sogepet Limited. 1963. *Geological Reconnaissance - Severn River, Ontario; Shore-fast Ice Reconnaissance - Fort Churchill to Cape Tatnam, Hudson Bay; Paleontology of Sogepet Field Party Collection - Hudson Bay Area; and Geological Reconnaissance - Southampton, Coats and Mansel Islands*. Project: 8730-S21-2E.

Sogepet Limited. 1964. *Report on Search for Coal Deposits - Churchill, Manitoba; Devonian of the Northern Hudson Bay Lowland - Cape Tatnam Region, Manitoba and Ontario; and Oil Shale Exploration - Southampton Island*. Project: 8725-S21-1E/8739-S21-1E.

EAST COAST:

Canadian Export Gas and Oil Ltd. 1970. *Regional Geology—Eastern Canada Offshore*. Project: 8635-C2-1E.

Released Geophysical Reports

WEST COAST:

Atlantic Richfield Canada Ltd. 1959/1960. *Reflection Seismic - Graham Island Offshore Area*. Project: 8824-A9-1E.

Husky Oil Operations Ltd. 1962. *Stratometer Survey - Tofino Area, Hecate Strait*. Project: 8824-H4-1E.

Amoco Canada Petroleum Company Ltd. 1966. *Seismic Reflection*. Project: 8829-A4-1E.

Amoco Canada Petroleum Company Ltd. 1966. *Magnetometer Survey*. Project: 8829-A4-2E.

Redwater Oils Ltd. 1968. *Seismic Survey*. Project: 8824-P4-1E.

Offshore Oil and Gas Corporation Ltd. 1968. *Aeromagnetic Survey - Queen Charlotte Strait*. Project: 8821-O6-1E.

Canadian Bonanza Petroleums Ltd. 1969. *Report on Airborne Geophysical Survey - Vancouver Island Area*. Project: 8821-C30-1E.

HUDSON BAY AND HUDSON STRAIT REGION:

Sogepet Limited. 1962. *Preliminary Report of Interpretation of Aeromagnetic Profiles - Southwest Hudson Bay*. Project: 8727-S21-1E.

Sogepet Limited. 1963. *Interpretation of an Airborne Magnetometer Survey of an Area near York Factory, Manitoba*. Project: 8721-S21-1E.

Sogepet Limited. 1964. *Report on a Refraction Seismic Survey of the Hudson Bay Lowlands, and Geophysical and Geological Exploration - Cape Tatnam, Manitoba*. Project: 8725-S21-1E/8739-S21-1E.

Banner Petroleums Ltd. 1970. *Report on Airborne Magnetometer Survey - Hudson Bay*. Project: 8721-B4-1E.

Western Minerals Ltd. 1970. *Aeromagnetic Interpretation*. Project: 8721-W7-1E.

Siebens Oil and Gas Company Limited. 1971. *Field and Interpretation Report on a Refraction Marine Survey on Hudson Bay*. Project: 8725-S1-1E.

Bow Valley Industries Ltd. 1971. *Field and Interpretation Report on Seismic Refraction Survey – Hudson Bay*. Project: 8725-B11-1E.

Austin Exploration Ltd. for Sulpetro. 1971. *Geophysical/Geological Evaluation of Hudson Strait Area*. Project: 8724-A12-1E.

Banner Petroleum Ltd. 1971. *Seismic Refraction Survey – Hudson Bay*. Project: 8725-B4-1E.

Western Minerals Ltd. 1971. *Report on a Seismic Sparker Survey – James Bay Area, N.W.T.* Project: 8724-W7-1E.

Wainoco Oil and Chemicals Limited. 1971. *Report on a Seismic Refraction Survey – Hudson Bay*. Project: 8725-W7-1E.

Austin Exploration Ltd. 1971. *Geophysical/Geological Evaluation – Hudson Strait*. Project: 8720-A12-1E.

Worldwide Energy Company Ltd. 1971. *Field and Interpretation Report on a Refraction Marine Survey in Hudson Bay*. Project: 8725-W4-1E.

Canadian Industrial Gas and Oil Ltd. 1971. *Refraction Marine Survey Field and Interpretation Report – Hudson Bay*. Project: 8725-C6-1E.

Darling Hydrocarbons Ltd. 1972. *Geophysical/Geological Evaluation – Hudson Bay Area*. Project: 8737-D2-1E.

Banner Petroleum Ltd. 1972. *Report on the Technical Operations and Interpretations of an Aeromagnetic Survey in S. E. Hudson Bay*. Project: 8721-B4-2E.

EAST COAST:

Great Plains Development Company of Canada Ltd. 1965. *Aeromagnetic Interpretation – Offshore Nova Scotia*. Project: 8621-G14-1E.

Great Plains Development Company of Canada Ltd. 1966. *Seismic Interpretation – Offshore Nova Scotia*. Project: 8624-G14-1E.

Northern Oil Explorers Ltd. 1967. *Technical Report on Seismic Marine Survey – Offshore Newfoundland (Grand Banks)*. Project: 8624-N3-1E.

Banner Petroleum Ltd. 1969. *Marine Seismic Reflection Survey – Gulf of St. Lawrence*. Project: 8624-B4-1E.

Voyager Petroleum Ltd. 1970. *Report on a Marine Seismic Survey in the Rich Point-Strait of Belle Isle Area*. Project: 8624-V1-1E.

Ballinderry Explorations Ltd. 1970. *Combined Sea Gravity and Marine Magnetometer Survey – Gulf of St. Lawrence*. Project: 8620-B6-1E.

Chevron Standard Limited. 1971. *Summary of Exploration – Anticosti Area*. Project: 8620-C4-4E.

Siebens Oil and Gas Ltd. 1971. *Marine Seismic Program – Burgeo Banks Area, Newfoundland*. Project: 8624-S1-1E.

Shell Canada Limited. 1971. *Geophysical Progress Report – East Coast Offshore Newfoundland*. Project: 8624-S6-1E.

Hudson's Bay Oil and Gas Company Limited. 1971. *Marine Vibroseis Survey – Gulf of St. Lawrence*. Project: 8620-H7-4E.

Darling Hydrocarbons Ltd. 1972. *Geophysical/Geological Evaluations – Labrador Shelf*. Project: 8637-D2-1E.

Canadian Ashland Exploration Ltd. 1973. *Seismic Reflection – Offshore Nova Scotia*. Project: 8624-C33-1E.

Transalta Oil and Gas Ltd. 1973. *Seismic Reflection – Burgeo Bank Marine Seismic Survey*. Project: 8624-T13-2E.

Austin Exploration Ltd. 1973. *Seismic Reflection – Grand Banks*. Project: 8624-A12-1E.

Released Research Reports

Some 40 research projects, funded and carried out by industry in connection with oil and gas permit acreage in areas of the Canadian offshore, have been approved under Section 48 of the *Canada Oil and Gas Land Regulations*. These projects mainly concern ice, safety, and environmental matters especially as they relate to the drilling of offshore wells. These reports are normally released from confidential status after five years.

Information and materials on the following research projects have been released from confidential status:

Amoco Canada Petroleum Company Ltd. 1964. *Report of Investigation of Drilling Platform Motions*. Project: 8640-A4-1E.

Amoco Canada Petroleum Company Ltd. 1964. *Grand Banks Sample Dredging and Piston Coring*. Project: 8640-A4-2E.

Amoco Canada Petroleum Company Ltd. 1964. *Meteorological Oceanographic Factors Affecting Offshore Petroleum Operations*. Project: 8640-A4-3E.

Aquitaine Company of Canada Ltd. 1970. *Climatology and Oceanography*. Project: 8740-A11-1E.

Shell Canada Resources Ltd. 1970. *Results of 1970 Satellite Offshore Survey Positioning Test, East Coast Offshore*. Project: 8640-S6-1E.

Amoco Canada Petroleum Company Ltd. 1971. *North Atlantic Ice Survey*. Project: 8640-A4-4DA.

Amoco Canada Petroleum Company Ltd. 1971. *Iceberg Dynamics*. Project: 8640-A4-5E.

Amoco Canada Petroleum Company Ltd. 1971. *Five Year Weather Hindcast*. Project: 8640-A4-6E.

Elf Oil Exploration and Production Canada Ltd. 1971. *Anchor Testing Report*. Project: 8640-E4-2E.

Imperial Oil Ltd. 1971. *Marine Reconnaissance Survey and Technical Feasibility for Installing a Pipeline from Grand Banks to Newfoundland*. Project: 8640-J1-1E.

Shell Canada Resources Ltd. 1971. *Nova Scotia Environment Report*. Project: 8640-S6-2P.

The following research projects may be released during the course of 1977:

Amoco Canada Petroleum Company Ltd. 1972. *Aerial Ice Survey*. Project: 8640-A4-7E.

B.P.O.G. 1972. *Environmental Conditions*. Project: 8640-B3-1E.

Total Eastcan. 1972. *Iceberg Impact Effects on Drillship*. Project: 8640-E2-1E.

Mobil Oil Canada Ltd. 1972. *East Coast Environmental Conservation Manual*. Project: 8640-M3-3P.

**EXPLORATORY WELLS DRILLED IN
THE CANADIAN OFFSHORE**

OFFSHORE WELLS

General information on the wells drilled off Canada's East and West Coast, and in the Hudson Bay and Hudson Strait regions.

Data on recent and current wells is subject to minor change.

ABBREVIATIONS

RT —Rotary Table
KB —Kelly Bushing
GL —Ground Level
P & A—Plugged and Abandoned
P & S—Plugged and Suspended
TD —Total Depth

WELL SYMBOLS

○ Drilling

⊗ Plugged & Abandoned

⊗ Significant Gas

⊗ Gas Show

● Significant Oil

⊗ Oil Show

⊗ Significant Oil & Gas

⊖ Plugged & Suspended

West Coast Region

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Footage Well Status
Shell Anglo Prometheus H-68	West of Van- couver Island	48° 37' 19.57" 125° 39' 06.54"	Sedco 135-F	Jun 11/67 Aug 9/67	113' 181'	7,662' TD P & A
Shell Anglo Pluto I-87	West of Van- couver Island	48° 56' 36.73" 125° 57' 01.30"	Sedco 135-F	Aug 11/67 Oct 12/67	108' 197'	12,225' TD P & A
Shell Anglo Zeus I-65	West of Van- couver Island	48° 54' 34.25" 126° 09' 09.93"	Sedco 135-F	Nov.7/67 Feb 5/68	113' 323'	9,981' TD P & A
Shell Anglo Zeus D-14	West of Van- couver Island	48° 53' 01.0" 126° 02' 59.8"	Sedco 135-F	Feb 24/68 Mar 31/68	112' 262'	7,984' TD P & A
Shell Anglo Tyee N-39	Hecate Strait	53° 18' 54.51" 131° 20' 21.42"	Sedco 135-F	Apr 7/68 May 19/68	96' 90'	11,350' TD P & A
Shell Anglo Sockeye B-10	Hecate Strait	52° 49' 08.53" 131° 00' 44.19"	Sedco 135-F	May 21/68 Jul 22/68	116' 102'	15,656' TD P & A
Shell Anglo Sockeye E-66	Hecate Strait	52° 45' 24.62" 130° 55' 19.44"	Sedco 135-F	Jul 23/68 Aug 12/68	114' 183'	9,142' TD P & A
Shell Anglo Auklet G-41	Hecate Strait	52° 20' 16.12" 130° 36' 32.77"	Sedco 135-F	Aug 16/68 Aug 29/68	114' 556'	7,777' TD P & A
Shell Anglo Osprey D-36	Queen Charlotte Sound	51° 35' 06.20" 129° 20' 47.65"	Sedco 135-F	Sep 1/68 Sep 17/68	112' 192'	8,302' TD P & A
Shell Anglo Harlequin D-86	Queen Charlotte Sound	51° 55' 03.58" 129° 58' 12.35"	Sedco 135-F	Sep 22/68 Nov 1/68	112' 459'	10,633' TD P & A
Shell Anglo Apollo J-14	West of Van- couver Island	49° 23' 34.60" 127° 02' 04.58"	Sedco 135-F	Nov 23/68 Jan 23/69	112' 464'	10,152' TD P & A
Shell Anglo Cygnet J-100	West of Van- couver Island	48° 19' 42.3" 125° 43' 03.0"	Sedco 135-F	Jan 26/69 Feb 20/69	112' 485'	8,070' TD P & A
Shell Anglo South Coho I-74	Hecate Strait	53° 33' 32.6" 131° 25' 48.9"	Sedco 135-F	Mar 12/69 Apr 5/69	116' 70'	9,121' TD P & A
Shell Anglo Murrelet L-15	Hecate Strait	52° 24' 41.3" 130° 47' 38.0"	Sedco 135-F	Apr 13/69 May 5/69	111' 364'	9,578' TD P & A

Hudson Bay – Hudson Strait Region

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Footage Well Status
Aquitaine et al Hudson Walrus A-71	Hudson Bay	58° 30' 02.05" 87° 10' 48.55"	Wodeco II	Aug 8/69 Oct 18/69	31' KB 587'	3,926' TD P & S
			Pentagone P-82	Sep 7/74 Sep 17/74	77' 587'	3,926' TD P & A
Aquit et al Narwhal South O-58	Hudson Bay	58° 07' 59.76" 84° 08' 02.96"	Pentagone P-82	Aug 1/74 Sep 1/74	77' 503'	4,341' TD P & A
Aquit et al Polar Bear C-11	Hudson Bay	58° 30' 04.35" 86° 47' 18.49"	Pentagone P-82	Sep 21/74 Oct 20/74	77' 553'	5,170' TD P & A

Note: Premium-Homestead Akpatok Island F-26 was drilled on Akpatok Island in Ungava Bay in 1969 under the administration of the Department of Energy, Mines and Resources. The well was P & A at a total depth of 1,217' KB.

East Coast Region

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Footage Well Status
Pan Am-IOE Tors Cove D-52	Grand Banks	44° 11' 14" 52° 23' 42"	Glomar Sirte	Jun 7/66 Aug 12/66	31' 293'	4,834' TD P & A
Pan-Am-IOE Grand Falls H-09	Grand Banks	45° 28' 19" 52° 00' 03"	Glomar Sirte	Aug 16/66 Oct 22/66	31' 256'	5,250' TD P & A
Mobil Sable Island C-67	Scotian Shelf	43° 56' 04.9" 59° 55' 01.4"	Peter Bawden Rig 18	Jun 7/67 Jan 2/68	27' KB 12.64' GL	15,106' TD P & A
Shell Onondaga E-84	Scotian Shelf	43° 43' 16.14" 60° 13' 17.41"	Sedneth 1	Sept 1/69 Nov 11/69	85' 190'	13,085' TD P & A
Shell Oneida O-25	Scotian Shelf	43° 14' 57.36" 61° 33' 36.49"	Sedneth 1	Nov 16/69 Feb 10/70	85' 270'	13,484' TD P & A
Shell Naskapi N-30	Scotian Shelf	43° 29' 46.78" 62° 33' 59.54"	Sedneth 1	Feb 16/70 Mar 19/70	85' 312'	7,235' TD P & A
Shell Mohawk B-93	Scotian Shelf	42° 42' 10.52" 64° 43' 53.50"	Sedco H	May 3/70 May 23/70	103' 384'	6,975' TD P & A
Shell Mic Mac J-77	Scotian Shelf	44° 36' 42.81" 59° 26' 10.86"	Sedneth I	Mar 25/70 May 24/70	85' 206'	12,750' TD P & A
Shell Abenaki L-57	Scotian Shelf	44° 16' 34.49" 59° 53' 39.64"	Sedco H	May 28/70 Jul 6/70	103' 357'	7,147' TD P & A

East Coast Region

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Footage Well Status
Shell Mississauga H-54	Scotian Shelf	44° 23' 20.39" 59° 22' 47.56"	Sedneth I	May 26/70 Jul 20/70	85' 335'	13,787' TD P & A
HB-Fina North- umberland Strait F-25	Gulf of St. Lawrence	46° 04' 23.8" 62° 03' 45.5"	Wodeco II	Apr 14/70 Jan 23/70	31' KB 98'	9,876' TD P & A
HB-Fina East Point E-49	Gulf of St. Lawrence	46° 38' 23.09" 61° 37' 26.07"	Wodeco II	Jun 26/70 Nov 10/70	32' KB 203'	11,569' P & S
			Sedco H	Oct 9/74 Nov 10/74	98' 203'	11,635' TD P & A
Shell Onondaga O-95	Scotian Shelf	43° 44' 48.09" 60° 13' 52.60"	Sedco H	Jul 9/70 Aug 16/70	103' 177'	10,874' TD P & A
Shell Huron P-96	Scotian Shelf	44° 35' 47.10" 58° 28' 50.63"	Sedneth 1	Jul 22/70 Aug 27/70	85' 190'	9,903' TD P & A
Shell Iroquois J-17	Scotian Shelf	44° 26' 31.37" 59° 47' 12.28"	Sedco H	Aug 18/70 Sep 6/70	103' 195'	6,845' TD P & A
Shell Cree E-35	Scotian Shelf	43° 44' 20.70" 60° 35' 55.89"	Sedco H	Sep 8/70 Nov 3/70	103' 175'	13,070' TD P & A
Shell Mic Mac H-86	Scotian Shelf	44° 35' 27.71" 59° 27' 03.12"	Sedneth 1	Aug 31/70 Dec 2/70	85' 178'	15,700' TD P & A
Shell Wyandot E-53	Scotian Shelf	44° 52' 20.70" 59° 23' 54.05"	Sedco H	Nov 7/70 Dec 14/70	103' 397'	10,005' TD P & A
Shell Argo F-38	Scotian Shelf	45° 27' 23.22" 58° 50' 24.34"	Sedco H	Dec 17/70 Feb 19/71	103' 235'	11,087' TD P & A
Shell Fox I-22	Scotian Shelf	45° 21' 33.60" 59° 33' 16.00"	Sedco H	Feb 20/71 Mar 3/71	103' 275'	2,722' TD P & A
Shell Abenaki J-56	Scotian Shelf	44° 15' 44.95" 59° 53' 03.02"	Sedneth 1	Dec 4/70 Mar 13/71	85' 350'	14,991' TD P & A
Shell Erie D-26	Scotian Shelf	44° 55' 03.52" 59° 34' 29.82"	Sedneth 1	Mar 16/71 Apr 11/71	85' 322'	7,795' TD P & A
Mobil-Tetco Esperanto K-78	Scotian Shelf	44° 47' 31.26" 58° 11' 19.24"	Sedco H	Mar 9/71 Apr 24/71	103' 225'	11,615' TD P & A
Shell Crow F-52	Scotian Shelf	45° 21' 24.23" 59° 08' 22.73"	Sedneth 1	Apr 12/71 Apr 27/71	85' 310'	4,943' TD P & A

East Coast Region

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Footage Well Status
Amoco-IOE Eider M-75	Grand Banks	45° 34' 54.97" 51° 56' 41.52"	Sedco I	Apr 18/71 Jul 9/71	98' 255'	11,582' TD P & A
Shell Sauk A-57	Scotian Shelf	44° 16' 05.70" 58° 37' 44.41"	Sedneth 1	Apr 30/71 Jul 10/71	85' 197'	15,010' TD P & A
Mobil-Tetco Dauntless D-35	Scotian Shelf	44° 44' 08.26" 57° 20' 46.62"	Sedco H	Apr 26/71 Jul 16/71	103' 227'	15,555' TD P & A
Shell Chippewa L-75	Scotian Shelf	44° 34' 35.87" 58° 41' 50.54"	Sedneth 1	Jul 12/71 Aug 2/71	85' 222'	6,975' TD P & A
Shell Onondaga F-75	Scotian Shelf	43° 44' 17.84" 60° 11' 36.25"	Sedco H	Jul 28/71 Sep 7/71	103' 185'	12,765' TD P & A
Amoco-IOE Murre G-67	Grand Banks	46° 06' 20.42" 49° 09' 38.07"	Sedco I	Jul 14/71 Sep 20/71	98' 212'	10,949' TD P & A
Tenneco et al Leif E-38	Labrador Shelf	54° 17' 29.87" 55° 05' 52.17"	Typhoon	Aug 13/71 Oct 8/71	40' 550'	3,557' TD P & S
			Pelican	Jul 25/73 Aug 1/73	40' 550'	3,557' TD P & A
Shell Triumph P-50	Scotian Shelf	43° 39' 51.62" 59° 51' 02.36"	Sedneth 1	Aug 4/71 Oct 10/71	85' 296'	15,077' TD P & A
Mobil-Tetco Sable Island E-48	Scotian Shelf	43° 57' 20.35" 60° 07' 24.44"	Peter Bawden Rig 14	May 28/71 Oct 15/71	21' KB 0' GL	11,820' TD P & S
Shell Eurydice P-36	Scotian Shelf	45° 25' 47.30" 60° 04' 46.97"	Sedco H	Sep 15/71 Oct 24/71	98' 540'	9,728' TD P & A
Shell Chippewa G-67	Scotian Shelf	44° 36' 20.50" 58° 39' 44.62"	Sedco H	Oct 28/71 Dec 18/71	98' 230'	12,040' TD P & A
Elf Hermine E-94	Grand Banks	45° 23' 29.30" 54° 29' 54.71"	Sedneth 1	Oct 22/71 Dec 31/71	85' 271'	10,720' TD P & A
Amoco-IOE Puffin B-90	Grand Banks	44° 39' 12.73" 53° 42' 28.35"	Sedco I	Sep 29/71 Jan 5/72	98' 350'	15,425' TD P & A
Amoco-Imp Petrel A-62	Grand Banks	44° 51' 06.29" 52° 54' 15.47"	Sedco I	Jan 10/72 Mar 2/72	98' 282'	6,384' TD P & A
Shell Mohican I-100	Scotian Shelf	42° 59' 39.04" 62° 28' 51.32"	Sedco H	Dec 27/71 Mar 10/72	98' 503'	14,414' TD P & A

East Coast Region

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Footage Well Status
Shell Marmora C-34	Scotian Shelf	43° 43' 13.79" 60° 05' 21.93"	Sedneth 1	Jan 15/72 Mar 31/72	85' 189'	13,248' TD P & A
Shell Primrose N-50	Scotian Shelf	43° 59' 48.43" 59° 06' 51.63"	Sedco H	Mar 14/72 Apr 21/72	98' 298'	5,622' TD P & A
Amoco-Imp Gannet O-54	Grand Banks	45° 03' 54.56" 52° 38' 09.72"	Sedco I	Mar 6/72 Apr 24/72	98' 328'	10,000' TD P & A
Amoco-Imp Shearwater J-20	Grand Banks	44° 29' 36.22" 52° 46' 53.31"	Sedneth 1	Apr 11/72 Jun 18/72	85' 322'	7,616' TD P & A
Mobil-Tetco Sable Island O-47	Scotian Shelf	43° 56' 56.70" 60° 06' 38.08"	Peter Bawden Rig 14	Dec 13/71 Jul 1/72	17' KB 6' GL	13,775' TD P & S
Shell-Mobil- Tetco Eagle D-21	Scotian Shelf	43° 50' 06.73" 59° 34' 09.21"	Sedco H	Apr 22/72 Jul 2/72	98' 168'	15,290' TD P & A
Amoco-Imp Bittern M-62	Grand Banks	44° 41' 55.85" 51° 10' 14.29"	Sedco I	Apr 27/72 Jul 29/72	98' 226'	15,683' TD P & A
Amoco-Imp Kittiwake P-11	Grand Banks	44° 40' 49.43" 53° 31' 45.65"	Sedneth 1	Jun 20/72 Aug 3/72	85' 314'	11,647' TD P & A
Amoco-Imp Jaeger A-49	Grand Banks	44° 28' 01.51" 50° 21' 00.65"	Sedco I	Aug 16/72 Aug 27/72	98' 190'	3,079' TD P & A
Mobil-Tetco Sable Island 1 H-58	Scotian Shelf	43° 57' 27.2" 60° 07' 37.8"	Peter Bawden Rig 9	Jun 3/72 Aug 27/72	35' KB 0' GL	9,971' TD P & A
Mobil-Tetco- Thebaud P-84	Scotian Shelf	43° 53' 59" 60° 12' 19"	Sedco H	Jul 8/72 Oct 13/72	90' 90'	13,500' TD P & S
Amoco-Imp- Cormorant N-83	Grand Banks	46° 02' 45.43" 48° 58' 02.07"	Sedco I	Aug 30/72 Nov 21/72	98' 216'	10,369' TD P & A
Amoco-Imp- Heron H-73	Grand Banks	44° 02' 26.65" 52° 25' 40.58"	Sedneth 1	Aug 6/72 Dec 5/72	85' 346'	12,000' TD P & A
Mobil-Gulf Adolphus 1-K-41	Grand Banks	47° 00' 39.22" 48° 22' 04.29"	Sedco J	Nov 16/72 Dec 9/72	103' 374'	4,065' TD P & A
Mobil-Tetco-Sable Island 2-H-58	Scotian Shelf	43° 57' 27.2" 60° 07' 37.8"	Peter Bawden Rig 9	Oct 6/72 Dec 31/72	35' KB 6' GL	9,050' TD P & S
Mobil-Gulf Adolphus 2-K-41	Grand Banks	47° 00' 40.56" 48° 22' 06.47"	Sedco J	Dec 17/72 Jan 8/73	103' 375'	4,065' P & S
			Sedco J	Jul 27/73 Sep 26/73	103' 375'	12,000' TD P & A

East Coast Region

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Footage Well Status
Amoco-Imp Gull F-72	Grand Banks	44° 11' 25.18" 52° 26' 32.30"	Sedco I	Dec 1/72 Jan 12/73	98' 307'	8,205' TD P & A
Amoco-Imp Merganser I-60	Grand Banks	44° 49' 36.11" 52° 22' 48.66"	Sedneth 1	Dec 7/72 Jan 17/73	85' 258'	6,245' TD P & A
Shell Primrose A-41	Scotian Shelf	44° 00' 05.68" 59° 06' 18.26"	Sedco H	Oct 15/72 Jan 27/73	98' 360'	11,865' TD P & A
Shell Primrose F-41	Scotian Shelf	44° 00' 29.55" 59° 07' 06.52"	Sedco H	Jan 30/73 Mar 5/73	98' 225'	8,505' TD P & A
Mobil-Tetco Sable Island 3-H-58	Scotian Shelf	43° 57' 27.2" 60° 07' 37.8"	Peter Bawden Rig 9	Jan 1/73 Mar 21/73	35' KB 6' GL	12,270' TD P & S
Amoco-Imp Skelly Tern A-68	Grand Banks	44° 27' 13.41" 53° 09' 00.84"	Sedco I	Jan 17/73 Apr 16/73	98' 376'	13,743' TD P & A
Shell Marmora P-35	Scotian Shelf	43° 44' 59.61" 60° 04' 47.58"	Sedco H	Mar 6/73 Apr 21/73	98' 175'	13,428' TD P & A
Mobil-Tetco Bluenose G-47	Scotian Shelf	44° 06' 20.79" 59° 21' 27.35"	Sedco J	Jan 25/73 Apr 25/73	103' 250'	15,050' TD P & A
Amoco-Imp-Skelly Mallard M-45	Grand Banks	44° 14' 46.16" 52° 07' 22.39"	Sedneth 1	Feb 26/73 May 2/73	85' 270'	11,555' TD P & A
Shell Tuscarora D-61	Scotian Shelf	44° 40' 10.35" 58° 55' 10.85"	Sedco H	Apr 23/73 Jun 2/73	98' 259'	12,925' TD P & A
Amoco-Imp-Skelly Sandpiper J-77	Grand Banks	45° 36' 38.44" 51° 41' 01.94"	Sedco I	May 22/73 Jun 15/73	98' 288'	2,635' TD P & A
Amoco-Imp-Skelly Sandpiper 2-J-77	Grand Banks	45° 36' 39.31" 51° 41' 00.55"	Sedco I	Jun 15/73 Jun 20/73	98' 296'	940' P & S
			Sedneth 1	Aug 20/73 Oct 30/73	98' 296'	11,566' TD P & A
Amoco-Imp-Skelly Razorbill F-54	Grand Banks	45° 13' 24.94" 52° 08' 22.46"	Sedco I Sedneth 1	Apr 19/73 Jul 4/73	98' 277'	10,286' TD P & A
Amoco-Imp-Skelly Heron J-72	Grand Banks	44° 01' 33.74" 52° 26' 08.62"	Sedco I	Jun 23/73 Jul 8/73	98' 348'	4,535' TD P & A
Mobil-Tetco Cohasset D-42	Scotian Shelf	43° 51' 06.52" 60° 37' 13.89"	Sedco J	Apr 27/73 Jul 16/73	103' 135'	14,525' TD P & S

East Coast Region

Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Footage Well Status
Mobil-Tetco-Sable Island 4-H-58	Scotian Shelf	43° 57' 27.2" 60° 07' 37.8"	Peter Bawden Rig 9	Mar 22/73 Aug 11/73	35' KB 6' GL	14,827' TD P & A
Amoco-Imp-Skelly Osprey H-84	Grand Banks	44° 43' 28.79" 49° 27' 22.92"	Sedneth 1	Jul 9/73 Aug 16/73	85' 200'	11,397' TD P & A
Eastcan et al Leif M-48	Labrador Shelf	54° 17' 45.92" 55° 07' 20.17"	Pelican	Aug 1/73 Aug 29/73	41' 545'	6,165' TD P & A
Shell Amoco Cap Rouge F-52	Gulf of St. Lawrence	47° 11' 20.29" 61° 08' 15.24"	Sedco H	Jun 8/73 Sep 3/73	102' 288'	16,182' TD P & A
Amoco-Imp-Skelly Egret K-36	Grand Banks	46° 25' 37" 48° 50' 22"	Sedco I	Jul 12/73 Sep 10/73	98' 240'	11,000' TD P & A
Mobil-Tetco Sable Island 5-H-58	Scotian Shelf	43° 57' 27.2" 60° 07' 37.8"	Peter Bawden Rig 9	Aug 15/73 Sep 18/73	35' KB 6' GL	8,130' TD P & S
Eastcan et al Bjarni H-81	Labrador Shelf	55° 30' 29.35" 57° 42' 05.52"	Pelican	Aug 29/73 Oct 14/73	41' 456'	8,251' TD P & S
			Pelican	Oct 3/74 Oct 25/74	41' 456'	8,251' TD P & A
Amoco-Imp-Skelly Spoonbill C-30	Grand Banks	45° 49' 06" 49° 04' 06"	Sedco I	Sep 12/73 Oct 14/73	98' 214'	9,046' TD P & A
Mobil-Tetco Sable Island 6-H-58	Scotian Shelf	43° 57' 27.2" 60° 07' 37.8"	Peter Bawden Rig 9	Sep 22/73 Oct 18/73	35' KB 6' GL	7,727' TD P & S
Amoco-Imp-Skelly Pelican J-49	Grand Banks	45° 28' 35.17" 52° 36' 41.71"	Sedco I	Oct 19/73 Nov 8/73	98' 300'	4,360' TD P & A
Shell-Soquip-Amoco Bradelle L-49	Gulf of St. Lawrence	47° 58' 31.95" 63° 07' 08.82"	Sedco H	Sep 7/73 Nov 28/73	98' 186'	14,503' TD P & A
Mobil-Gulf Flying Foam I-13	Grand Banks	47° 02' 41.96" 48° 46' 30.98"	Sedco J	Sep 26/73 Nov 28/73	103' 298'	12,084' TD P & A
Amoco-Imp-Skelly Brant P-87	Grand Banks	44° 16' 59.91" 52° 42' 19.48"	Sedco I	Nov 14/73 Dec 21/73	98' 324'	11,771' TD P & A
Mobil-Gulf Bonniton H-32	Grand Banks	45° 51' 26.79" 48° 19' 31.76"	Sedco J	Dec 2/73 Jan 2/74	103' 334'	10,000' TD P & A
Elf et al Emerillon C-56	Grand Banks	45° 15' 04.44" 54° 23' 17.82"	Sedco H	Dec 7/73 Jan 25/74	93' 393'	10,750' TD P & A

East Coast Region

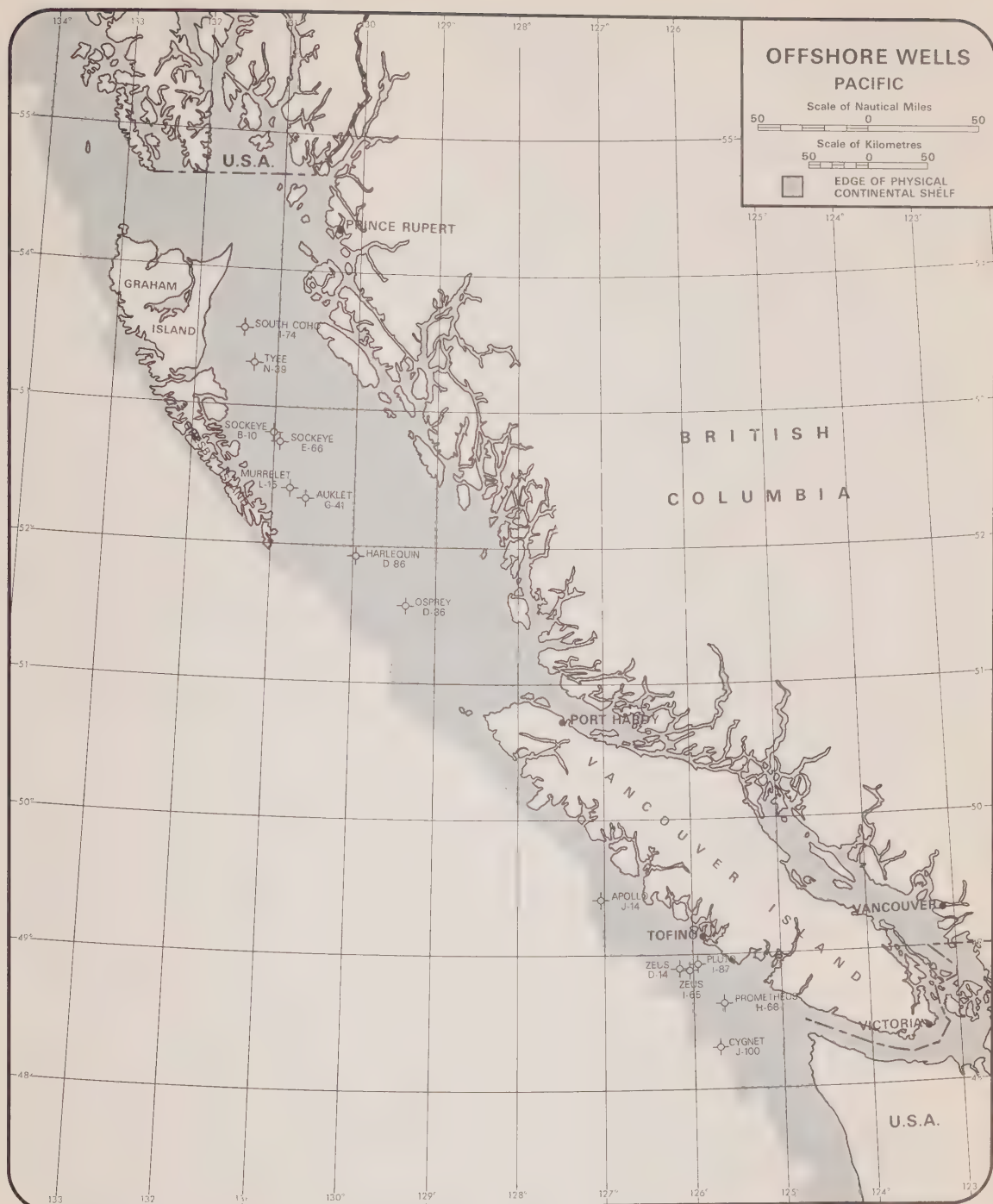
Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Footage Well Status
Union et al Shell Ojibwa E-07	Scotian Shelf	43° 46' 20.44" 61° 46' 14.42"	Sedco H	Feb 4/74 Feb 28/74	98' 245'	7,643' TD P & A
Amoco-Imp-Skelly Coot K-56	Grand Banks	45° 45' 41.52" 52° 08' 32.13"	Sedco I	Dec 24/73 Mar 21/74	98' 262'	11,600' TD P & S
			Sedco I	Jul 10/74 Jul 12/74	98' 262'	11,600' TD P & A
Amoco-Imp-Skelly Twillick G-49	Grand Banks	44° 18' 25.60" 51° 21' 32.10"	Sedco I	Mar 31/74 Apr 14/74	98' 244'	4,270' TD P & A
Mobil-Tetco-Texaco Citnalta I-59	Scotian Shelf	44° 08' 42.58" 59° 37' 32.11"	Sedco J	Feb 4/74 Apr 29/74	98' 310'	15,010' TD P & S
Shell Demascota G-32	Scotian Shelf	43° 41' 27.18" 60° 49' 54.00"	Sedco H	Mar 1/74 May 20/74	98' 178'	15,329' TD P & A
Union et al Sambro I-29	Scotian Shelf	43° 38' 35.29" 62° 48' 08.52"	Sedco H	May 23/74 Jun 27/74	100' 635'	10,071' TD P & A
Amoco-Imp-Skelly Carey J-34	Grand Banks	45° 23' 32.42" 52° 35' 02.67"	Sedco I	Apr 17/74 Jul 6/74	98' 330'	12,104' TD P & A
Union et al Jason C-20	Scotian Shelf	45° 29' 05.45" 58° 32' 28.27"	Sedco H	Jul 3/74 Jul 22/74	98' 368'	8,146' TD P & A
Union et al Hercules G-15	Scotian Shelf	45° 34' 20.65" 58° 46' 13.06"	Sedco H	Jul 23/74 Aug 1/74	98' 400'	3,547' TD P & A
Texaco-Shell Intrepid L-80	Scotian Shelf	43° 49' 35.78" 59° 56' 43.82"	Sedco J	May 18/74 Aug 15/74	100' 142'	13,655' TD P & A
Amoco-Imp-Skelly Egret N-46	Grand Banks	46° 25' 56.14" 48° 51' 47.35"	Sedco I	Jul 27/74 Aug 29/74	98' 222'	9,000' TD P & A
Murphy et al North Sydney P-05	Scotian Shelf	46° 34' 46.24" 59° 45' 01.65"	Sedco H	Aug 10/74 Sep 7/74	98' 206'	5,449' TD P & A
Union et al Montagnais I-94	Scotian Shelf	42° 54' 40.71" 64° 13' 46.51"	Sedco H	Sep 12/74 Sep 29/74	98' 370'	5,400' TD P & A
BP-Columbia Bonavista C-99	N.E. Newfound- land Shelf	49° 08' 05.98" 51° 14' 24.47"	Havdrill	Jun 26/74 Oct 3/74	41' 1078'	12,090' P & S
			Havdrill	Jun 12/75 Aug 12/75	41' 1078'	12,398' TD P & A
Eastcan et al Gudrid H-55	Labrador Shelf	54° 54' 30.02" 55° 52' 32.22"	Pelican	Jul 14/74 Oct 4/74	40' 992'	9,311' TD P & A

East Coast Region

Well Name ¹	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Footage Well Status
Mobil-Gulf Dominion O-23	Grand Banks	47° 22' 49.14" 48° 18' 27.90"	Sedco J	Aug 27/74 Oct 21/74	100' 530'	13,116' TD P & A
Amoco-Imp-Skelly Skua E-41	Grand Banks	45° 20' 23.23" 48° 52' 26.26"	Sedco I	Aug 31/74 Oct 21/74	98' 272'	10,626' TD P & A
Mobil-Gulf Adolphus D-50	Grand Banks	46° 59' 03.06" 48° 22' 28.86"	Sedco J	Oct 23/74 Jan 5/75	98' 377'	12,093' TD P & A
Amoco-Imp-Skelly Phalarope P-62	Grand Banks	45° 11' 49.25" 51° 24' 14.40"	Sedco I	Oct 24/74 Jan 5/75	98' 240'	10,373' TD P & A
Mobil-Tetco-Gulf Adventure F-80	Scotian Shelf	45° 19' 27.54" 57° 56' 22.80"	Sedco J	Jan 13/75 Feb 22/75	98' 321'	6,559' TD P & A
Mobil-Gulf Chinampas N-37	Bay of Fundy	44° 56' 53" 66° 35' 17"	Sedco J	Mar 4/75 May 8/75	103' 190'	12,013' TD P & A
Mobil-Texaco Sachem D-76	Scotian Shelf	44° 35' 09.22" 57° 41' 58.29"	Sedco J	May 17/75 Jul 30/75	98' 192'	16,006' TD P & A
Eastcan et al Freydis B-87	Labrador Shelf	53° 56' 13.31" 54° 42' 30.01"	Pelican	Jul 2/75 Aug 8/75	40' 575'	7,592' TD P & A
Eastcan et al Karlsefni A-13	Labrador Shelf	58° 52' 15.03" 61° 46' 42.08"	Pelican	Aug 12/75 Sep 25/75	41' 573'	10,774' P & S
			Pelican	Sep 13/76 Oct 25/76	41' 573'	13,612' TD P & A
Eastcan et al Snorri J-90	Labrador Shelf	57° 19' 44.52" 59° 57' 44.37"	Sedco 445	Jul 28/75 Oct 9/75	37' 462'	10,531' TD P & S
			Pelican	Aug 31/76 Sept 8/76	41' 462'	10,531' TD P & A
Mobil-Gulf-Imp Cumberland B-55	N.E. Newfound- land Shelf	48° 24' 12.57" 50° 07' 58.13"	Sedco J	Aug 9/75 Oct 21/75	98' 630'	13,571' TD P & A
BP-Columbia et al Indian Harbor M-52	Labrador Shelf	54° 21' 51.34" 54° 23' 51.81"	Havdrill	Aug 21/75 Oct 23/75	42.6' 649'	7,783' P & S
			Sedco J	Sep 5/76 Nov 6/76	98' 649'	12,986' TD P & A
Eastcan et al Cartier D-70	Labrador Shelf	54° 39' 02.39" 55° 40' 29.90"	Pelican	Sep 27/75 Oct 31/75	41' 1018'	6,322' TD P & A
Shell Onondaga B-96	Scotian Shelf	43° 45' 07" 60° 14' 03"	Sedco H	Jan 12/76 Mar 21/76	98' 198'	12,328' TD P & A

East Coast Region

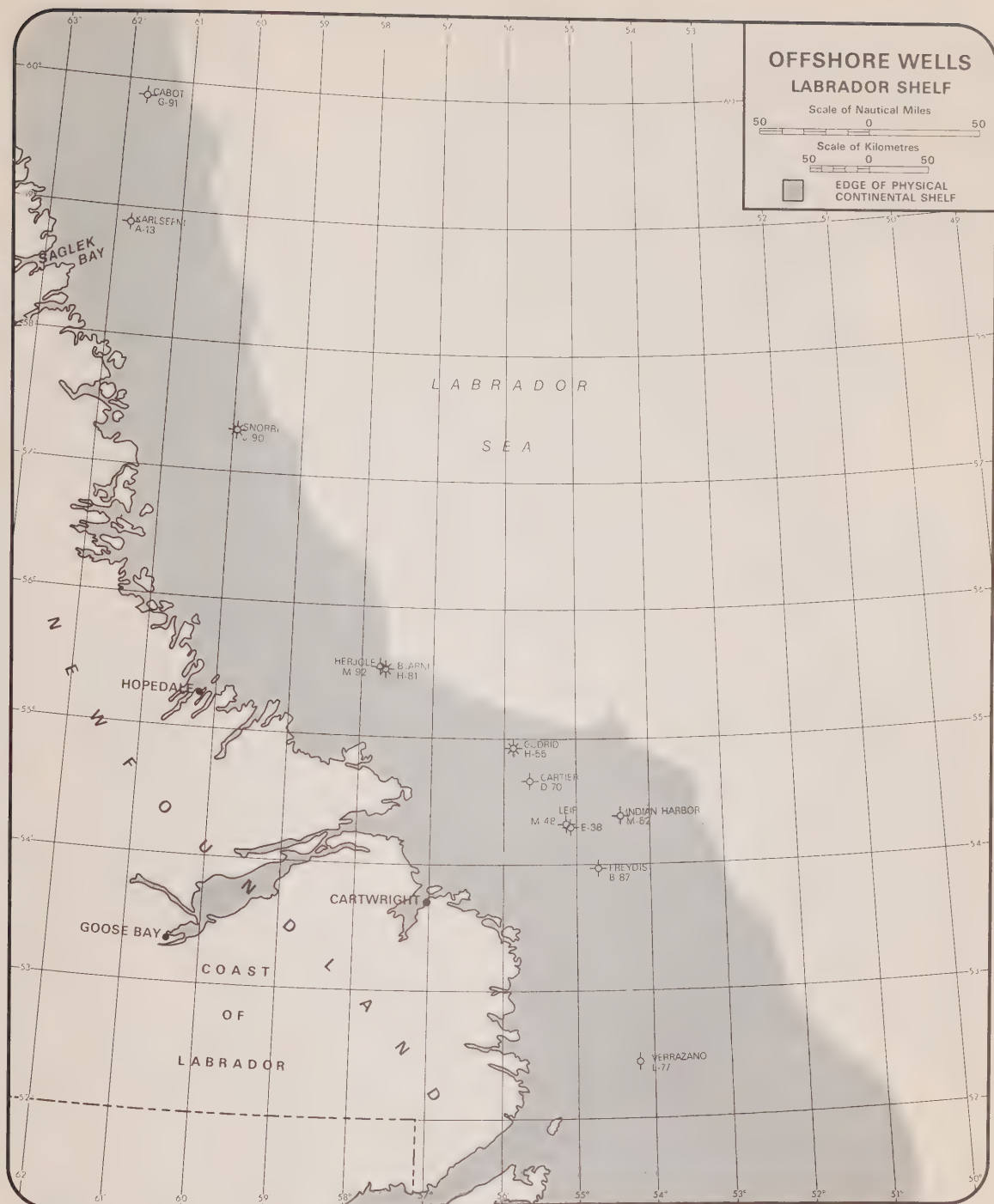
Well Name	Area	Latitude Longitude	Drilling Unit	Spud Date Rig Released	RT Elev'n Water Depth	Footage Well Status
Petro-Canada-Shell Mic Mac D-89	Scotian Shelf	44° 38' 07.84" 59° 28' 18.31"	Sedco H	Mar 26/76 May 4/76	98' 250'	10,700' TD P & A
Petro-Canada-Mobil Hesper M-52	Scotian Shelf	44° 41' 41" 57° 52' 33"	Sedco H	May 8/76 Jun 5/76	98' 138'	9,200' TD P & A
Shell et al North Sydney F-24	Scotian Shelf	46° 33' 24" 59° 48' 45"	Sedco H	Jun 9/76 Jul 14/76	98' 198'	5,600' TD P & A
Eastcan et al Cabot G-91	Labrador Shelf	59° 50' 20" 61° 43' 54.6"	Petrel	Jul 31/76 Aug 29/76	40' 595'	1,608' TD P & A
Petro-Canada-Shell Penobscot L-30	Scotian Shelf	44° 09' 42.48" 60° 04' 07.13"	Sedco H	Jul 18/76 Sep 23/76	98' 451'	14,000' TD P & A
Eastcan et al Verrazano L-77	Labrador Shelf	52° 26' 36.5" 54° 11' 52.6"	Petrel	Sep 1/76 Sep 29/76	40' 610'	1,509' TD P & S
Petro-Canada-Shell Wenonah J-75	Scotian Shelf	43° 34' 33.88" 60° 26' 06.79"	Sedco H	Sep 26/76 Nov 15/76	98' 219'	12,040' TD P & A
Eastcan et al Herjolf M-92	Labrador Shelf	55° 31' 53.4" 57° 44' 52.9"	Zapata Ugland	Aug 28/76 Nov 22/76	88' 476'	13,406' TD P & A
Petro-Canada-Shell Moheida P-15	Scotian Shelf	43° 04' 55.83" 62° 16' 43.15"	Sedco H	Nov 18/76	98' 376'	10,591' Drilling



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Hudson Bay and Hudson Strait
West Coast Offshore**

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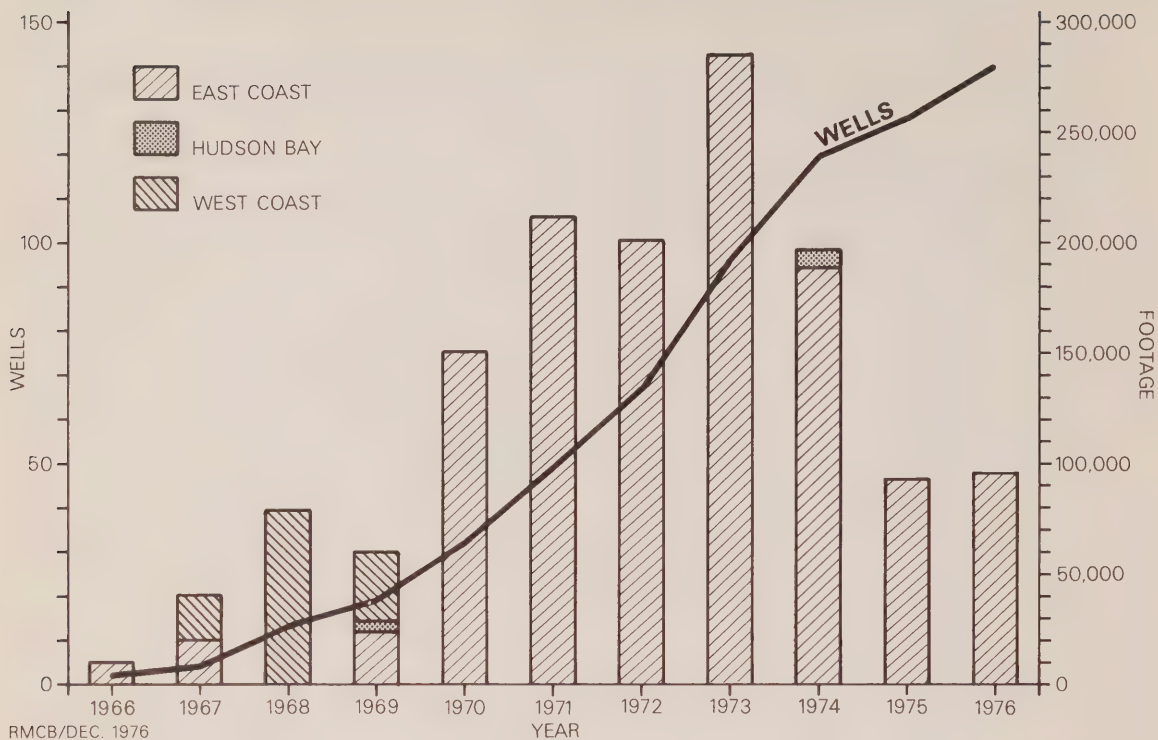
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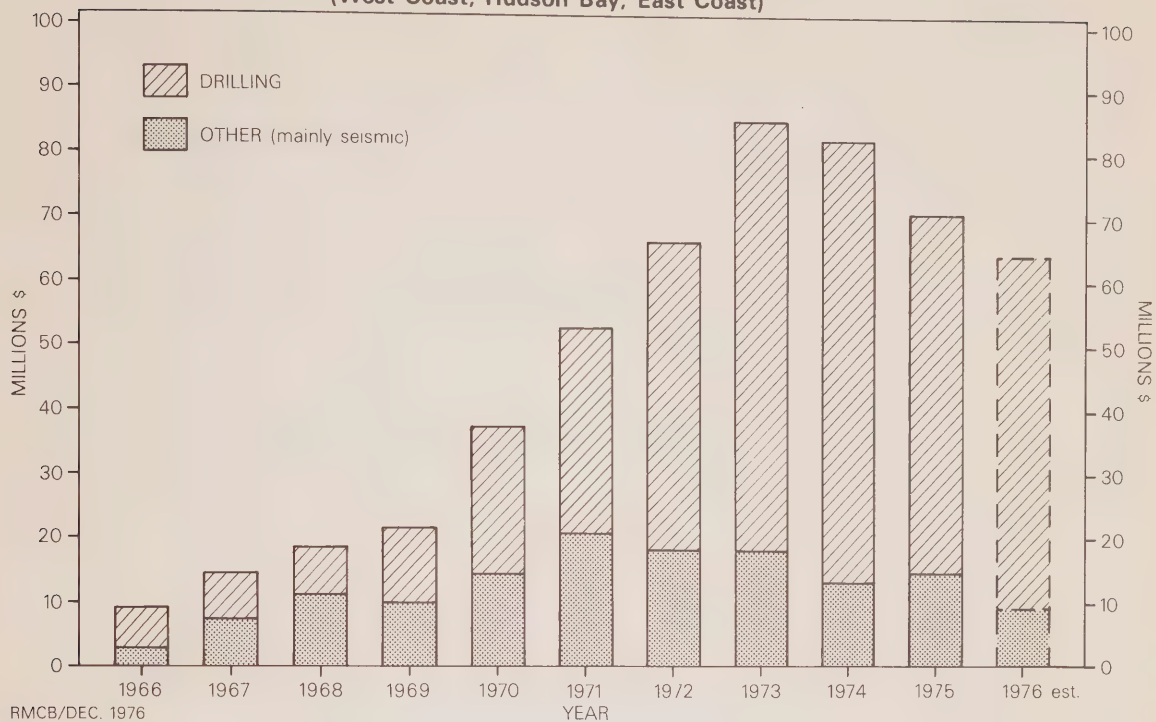
GRAPHS AND HISTOGRAMS

OIL AND GAS DRILLING OFFSHORE CANADA **— ANNUAL FOOTAGE AND CUMULATIVE NUMBER OF WELLS**



APPROXIMATE EXPENDITURES BY INDUSTRY IN THE SEARCH FOR OIL AND GAS OFFSHORE CANADA

(West Coast, Hudson Bay, East Coast)



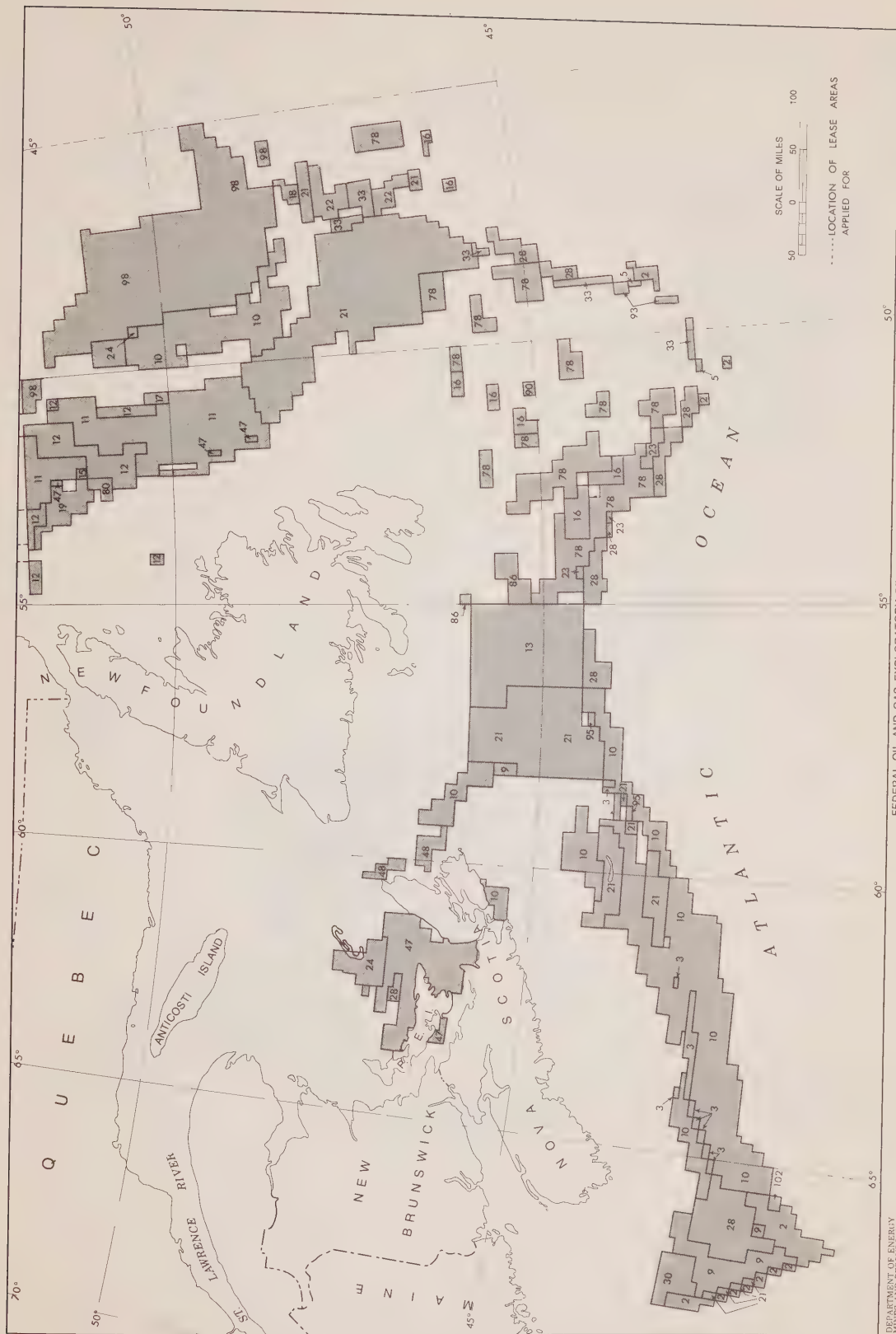
RMCB/DEC. 1976

OFFSHORE OIL AND GAS PERMIT MAPS AND INDEX

These small scale maps should be used only as a guide to offshore federal oil and gas exploratory permit areas. Official permit maps are referred to under "Selected Publications" elsewhere in Part II.

INDEX

KEY	PERMITTEE	KEY	PERMITTEE	KEY	PERMITTEE
1.	Lochiel Exploration Ltd.	29.	Amerada Minerals Corporation of Canada Ltd.	80.	B.P. Exploration Canada Limited
2.	Siebens Oil & Gas Ltd.		Pan Ocean Oil (Canada) Ltd.		Columbia Gas Development of Canada Ltd.
3.	Hudson's Bay Oil and Gas Company Limited	30.	Voyager Petroleum Ltd.		Chevron Canada Limited
	10%		27.5%		Gulf Oil Canada Limited
	Ranger Oil (Canada) Limited	32.	Transalta Oil & Gas Ltd.		10%
	57%	33.	Canadian Superior Oil Ltd.	86.	Aquitaine Company of Canada Ltd.
	Bow Valley Industries Ltd.		27.5%		76.6666%
	8%	34.	Voyager Petroleum Ltd.		Home Oil Company Limited
	Canadian Superior Oil Ltd.		50%		6.6667%
	5%		25%		Texaco Canada Limited
	20%		Solar Energy Resources Ltd.		6.6667%
	Sun Oil Company Limited		Michigan Wisconsin Pipeline Company		PanCanadian Petroleum Limited
	5%		12-1/2%		6.6667%
5.	Canada Geothermal Oil Ltd.		American Natural Gas Production Company	90.	Ashland Oil Canada Limited
	66-2/3%		12-1/2%		3.3333%
	Bow Valley Industries Ltd.	46.	Elf Oil Exploration and Production		Canadian Homestead Resources Limited
6.	Amerada Minerals Corporation of Canada Ltd.			98.	Imperial Oil Enterprises Ltd.
	80%	47.	Hudson's Bay Oil and Gas Company Limited		
	Pan Ocean Oil (Canada) Ltd.			101.	Pan Northern Petroleum Ltd.
	6 2/3%	48.	Murphy Oil Company Ltd.		
	C & K Petroleum, Ltd.		25%	102.	Fairholme Development Limited
	6 2/3%		Candex Development Limited		
	Ladd Exploration Company		25%	105.	Douglas F. Smith
7.	Ulster Petroleum Ltd.		12-1/2%		
8.	Ranger Oil (Canada) Limited		Husky Oil Ltd.	106.	Tricentrol Canada Limited
9.	Chevron Canada Limited		25%		69%
			CNG Development Company Ltd.		Oakwood Petroleum Ltd.
			12-1/2%		31%
10.	Shell Canada Resources Limited	50.	Paddon Hughes Development Co. Ltd. (The)		
	50%	51.	Sogepet Limited		
	Shell Explorer Limited		33-1/3%		
11.	BP Exploration Canada Limited		Teck Corporation Limited		
	50%		33-1/3%		
	Supertest Investments and Petroleum Limited		Canadian Homestead Oil Limited		
	50%		33-1/3%		
12.	Total Eastcan Exploration Ltd.	53.	Atlantic Richfield Canada Ltd.		
	28.33%		Aquitaine Company of Canada Ltd.		
	Amerada Minerals Corporation of Canada Ltd.		26.3%		
	16.67%		Elf Oil Exploration and Production Canada Ltd.		
	Gulf Oil Canada Limited		7.9%		
	16.67%		Petrofina Canada Ltd.		
	Aquitaine Company of Canada Ltd.		6.6%		
	13.33%		Sogepet Limited		
	AGIP Canada Ltd.		6.6%		
	10.00%	54.	Aquitaine Company of Canada Ltd.		
	Sun Oil Company Limited				
	10.00%	58.	Pan Ocean Oil (Canada) Ltd.		
	Total Petroleum (North America) Ltd.		45%		
	5.00%		Peyto Oils Ltd.		
13.	Gulf Oil Canada Limited		28%		
15.	Pacific Petroleum, Ltd.		High North Petroleum Ltd.		
	50%		14%		
	Phillips Petroleum Canada Ltd.		Norris Holdings Ltd.		
	50%		13%		
16.	Amoco Canada Petroleum Company Ltd.	59.	Pennant-Puma Oils Ltd.		
17.	Lochiel Exploration Ltd.		66-2/3%		
	50%		Provident Resources Ltd.		
	Texaco Exploration Canada Ltd.		16-2/3%		
	50%		Colonial Oil & Gas Limited		
18.	Norcen Energy Resources Limited		16-2/3%		
19.	Mobil Oil Canada, Ltd.	60.	Westcoast Petroleum Ltd.		
	50%		75%		
	Aquitaine Company of Canada Ltd.		Ulster Petroleum Ltd.		
	50%		25%		
21.	Mobil Oil Canada, Ltd.	62.	Northwest Oils Ltd.		
22.	Imperial Oil Limited				
23.	Star Oil & Gas Ltd.	64.	Sogepet Limited		
24.	Shell Canada Resources Limited		60%		
25.	Societe Quebecoise D'Initiative Petrolieres		Canada Homestead Oils Limited		
26.	Sulpetro of Canada Ltd.		20%		
28.	Texaco Exploration Canada Ltd.		Teck Corporation Limited		
			20%		
		69.	Home Oil Company Limited		
		75.	Union Oil Company of Canada Limited		
		77.	Mobil Oil Canada, Ltd.		
			25%		
			Canada-Cities Service, Ltd.		
			30%		
			Hamilton Brothers Canadian Gas Company Ltd.		
			27.5%		
			Siebens Oil & Gas Ltd.		
			17.5%		
		78.	Amoco Canada Petroleum Company Ltd.		
			50%		
			Imperial Oil Enterprises Ltd.		
			50%		



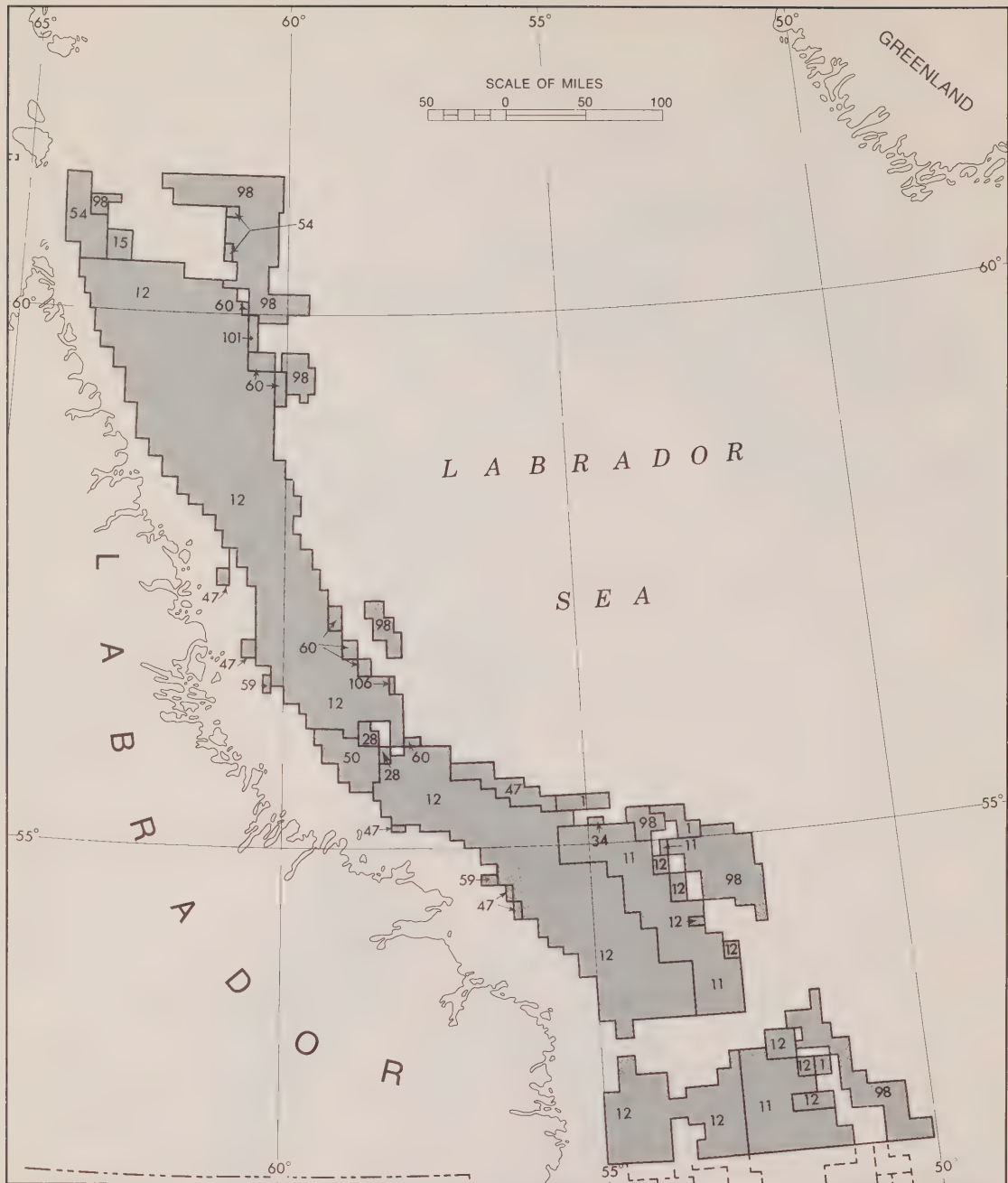
DEPARTMENT OF ENERGY
MINES AND RESOURCES

FEDERAL OIL AND GAS EXPLORATORY PERMITS

GULF OF ST LAWRENCE AND ATLANTIC

JANUARY 1, 1977

RESOURCE MANAGEMENT AND
CONSERVATION BRANCH



DEPARTMENT OF ENERGY,
MINES AND RESOURCES

FEDERAL OIL AND GAS EXPLORATORY PERMITS LABRADOR SEA

JANUARY 1, 1977

RESOURCE MANAGEMENT AND
CONSERVATION BRANCH





DEPARTMENT OF ENERGY, MINES AND RESOURCES

FEDERAL OIL AND GAS EXPLORATORY PERMITS

RESOURCE MANAGEMENT AND CONSERVATION BRANCH

PACIFIC
JANUARY 1, 1977

PERMITTEE	(SINGLES)	GULF OF ST. LAWRENCE AND ATLANTIC	LABRADOR SEA	HUDSON BAY AND HUDSON STRAIT	PACIFIC	TOTAL	KEY NOS. AND REMARKS
AGIP Canada Ltd.	--	--	--	--	--	--	-See 12
Amerada Minerals Corporation of Canada Ltd.	--	--	--	--	--	--	-See 6,12,29
American Natural Gas Production Company	--	--	--	--	--	--	-See 34,36
Amoco Canada Petroleum Company Ltd.	221,338	--	--	--	--	221,438	16 see 78
Aquitaine Company of Canada Ltd.	--	778,693	175,717	--	--	954,410	54 see 12,19,53,86
Ashland Oil Canada Limited	--	--	--	--	--	--	-See 86
Atlantic Richfield Canada Ltd.	--	--	--	--	--	--	-See 53
Bow Valley Industries Ltd.	--	--	--	--	--	--	-See 5
BP Exploration Canada Limited	--	--	--	--	--	--	-See 11,80
Canada-Cities Service Ltd.	--	--	--	--	--	--	-See 77
Canada Geothermal Oil Ltd.	--	--	--	--	--	--	-See 5
Canadian Homestead Oils Limited	--	--	--	--	--	--	-See 51,64
Canadian Homestead Resources Limited	--	--	--	--	--	--	-See 90
Canadian Superior Oil Ltd.	--	--	--	--	--	--	-See 3
Candex Development Limited	--	--	--	--	--	--	-See 48
Chevron Canada Limited	2,174,190	--	--	--	--	2,174,190	9
CNG Development Company Ltd.	--	--	--	--	--	--	-See 48
Colonial Oil & Gas Limited	--	--	--	--	--	--	-See 59
Columbia Gas Development of Canada Ltd.	--	--	--	--	--	--	-See 80
C & K Petroleum Ltd.	--	--	--	--	--	--	See 6
Elf Oil Exploration and Production (Canada) Ltd.	--	--	--	--	--	--	-See 53,
Fairholme Development Limited	95,844	--	--	--	--	95,844	102
Francana Oil & Gas Ltd.	--	--	--	--	--	--	-See 48
Gulf Oil Canada Limited	5,385,078	--	--	--	--	5,385,078	13 see 12
Hamilton Brothers Canadian Gas Company Ltd.	--	--	--	--	--	--	-See 77
High North Petroleum Ltd.	--	--	--	--	--	--	-See 58
Home Oil Company Limited	--	--	64,493	--	--	64,493	69 see 86
Hudson's Bay Oil and Gas Company Limited	3,664,274	827,144	--	--	--	4,491,868	47 see 3
Husky Oil Ltd.	--	--	--	--	--	--	-See 48
Imperial Oil Enterprises Ltd.	13,751,101	5,731,301	--	--	--	19,482,402	98 see 78
Imperial Oil Limited	1,125,417	--	--	--	--	1,125,417	22
Ladd Exploration Company	--	--	--	--	--	--	See 6
Lochiel Exploration Ltd.	--	550,576	--	243,386	793,962	1	
Michigan Wisconsin Pipeline Company	--	--	--	--	--	--	-See 34
Mobil Oil Canada Ltd.	15,723,390	--	--	--	--	15,723,390	21 see 19,34,77
Murphy Oil Company Ltd.	--	--	--	--	--	--	-See 48
Norcen Energy Resources Limited	213,010	--	--	--	--	213,010	18
Norris Holdings Ltd.	--	--	--	--	--	--	-See 58
Northwest Oils Ltd.	--	--	103,000	--	103,000	62	

PERMITTEE	(SINGLES)	GULF OF ST. LAWRENCE AND ATLANTIC	LABRADOR SEA	HUDSON BAY AND HUDSON STRAIT	PACIFIC	TOTAL	KEY NOS. AND REMARKS
Oakwood Petroleum Ltd.		--	--	--	--	--	-See 106
Pacific Petroleum Ltd.		--	--	--	--	--	-See 15
Paddon Hughes Development Co. Ltd. (The)		--	753,404	--	--	753,404	50
Pan Canadian Petroleum Limited		--	--	--	--	--	-See 86
Pan Northern Petroleum Ltd.		--	64,333	--	--	64,333	101
Pan Ocean Oil (Canada) Ltd.		--	--	--	--	--	-See 6,29
Pennant Puma Oils Ltd.		--	--	--	--	--	-See 59
Petrofina Canada Ltd.		--	--	--	--	--	-See 53
Peyto Oils Ltd.		--	--	--	--	--	-See 58
Philips Petroleum Canada Ltd.		--	--	--	--	--	-See 15
Provident Resources Ltd.		--	--	--	--	--	-See 59
Ranger Oil (Canada) Limited		--	--	--	197,030	197,030	8 see 3
Shell Canada Resources Limited		1,480,961	--	--	--	1,480,961	24 see 10
Shell Explorer Limited		--	--	--	--	--	-See 10
Siebens Oil & Gas Ltd.		2,525,485	--	--	--	2,525,485	2 see 77
Smith Douglas Fletcher		--	--	--	2,933,971	2,933,971	105
Societe Quebecoise D'Initiatives Petrolieres		215,425	--	--	--	215,425	25
Sogepet Limited		--	--	--	--	--	-See 51,53,64
Solar Energy Resources Ltd.		--	--	--	--	--	-See 34
Star Oil & Gas Ltd.		368,806	--	--	--	368,806	23
Sulpetro of Canada Ltd.		--	--	346,288	--	346,288	26
Sun Oil Company Limited		--	--	--	--	--	-See 3
Supertest Investments and Petroleum Limited		--	--	--	--	--	-See 11
Teck Corporation Limited		--	--	--	--	--	-See 51,64
Texaco Canada Limited		--	--	--	--	--	-See 86
Texaco Exploration Canada Ltd.		5,342,506	178,483	--	--	5,520,989	28 see 17
Total Eastcan Exploration Ltd.		--	--	--	--	--	-See 12
Total Petroleum (North America) Ltd.		--	--	--	--	--	-See 12
Transalta Oil & Gas Ltd.		988,414	--	--	--	988,414	30
Tricentrol Canada Ltd.		--	--	--	--	--	-See 106
Ulster Petroleum Ltd.		--	--	115,980	--	115,980	7 see 60
Union Oil Company of Canada Limited		--	--	--	112,397	112,397	75
Voyager Petroleum Ltd.		1,064,735	--	--	--	1,064,735	33 see 29
Westcoast Petroleum		--	--	--	--	--	-See 60

PERMITTEE	(JOINT)		GULF OF ST. LAWRENCE AND ATLANTIC	LABRADOR SEA	HUDSON BAY AND HUDSON STRAIT	PACIFIC	TOTAL	KEY NOS. AND REMARKS
Amerada Minerals Corporation of Canada Ltd.	80%	--	--	--	248,328	--	248,328	6.
Pan Ocean Oil (Canada) Ltd.	6 2/3%							
C & K Petroleum, Ltd.	6 2/3%							
Ladd Exploration Company	6 2/3%							
Amerada Minerals Corporation of Canada Ltd.	45.0%	--	--	--	263,698	--	263,698	29
Pan Ocean Oil (Canada) Ltd.	27.5%							
Voyager Petroleum Ltd.	27.5%							
Amoco Canada Petroleum Company Ltd.	50%	3,711,895	--	--	--	3,711,895	78	
Imperial Oil Enterprises Ltd.	50%							
Aquitaine Company of Canada Ltd.	76.6666%	88,522	--	--	--	88,522	86	
Horne Oil Company Limited	6.6667%							
Texaco Canada Limited	6.6667%							
PanCanadian Petroleum Limited	6.6667%							
Ashland Oil Canada Limited	3.3333%							
Atlantic Richfield Canada Ltd.	52.6%	--	--	--	6,267,129	--	6,267,129	53
Aquitaine Company of Canada Ltd.	26.3%							
Elf Oil Exploration and Production Canada Ltd.	7.9%							
Petrofina Canada Ltd.	6.6%							
Sogepet Limited	6.6%							
B.P. Exploration Canada Limited	60%	241,373	--	--	--	241,373	80	
Columbia Gas Development of Canada Ltd.	17%							
Chevron Canada Limited	13%							
Gulf Oil Canada Limited	10%							
B.P. Exploration Canada Limited	50%	7,719,668	5,004,140	--	--	12,723,808	11	
Supertest Investments and Petroleum Limited	50%							
Bow Valley Industries Ltd.	66-2/3%	92,987	--	--	--	92,987	5	
Canada Geothermal Oil Ltd.	33-1/3%							
Canada-Cities Service, Ltd.	30.0%	--	--	--	3,236,718	--	3,236,718	77
Hamilton Brothers Canadian Gas Company Ltd.	27.5%							
Mobil Oil Canada Ltd.	25.0%							
Siebens Oil & Gas Ltd.	17.5%							
Lochiel Exploration Ltd.	50%	163,660	--	--	--	163,660	17	
Texaco Exploration Canada Ltd.	50%							
Mobil Oil Canada Ltd.	50%	915,206	--	--	--	915,206	19	
Aquitaine Company of Canada Ltd.	50%							
Mobil Oil Canada, Ltd.	50%	--	36,488	--	--	36,488	34	
Solar Energy Resources Ltd.	25%							
Michigan Wisconsin Pipeline Company	12-1/2%							
American Natural Gas Production Company	12-1/2%							

PERMITTEE	(JOINT)		GULF OF ST. LAWRENCE AND ATLANTIC	LABRADOR SEA	HUDSON BAY AND HUDSON STRAIT	PACIFIC	TOTAL	KEY NOS. AND REMARKS
Murphy Oil Company Ltd.		25%	700,470	--	--	--	700,470	48
Candex Development Limited		25%						
Husky Oil Ltd.		25%						
Francana Oil & Gas Ltd.		12-1/2%						
CNG Development Company Ltd.		12-1/2%						
Pacific Petroleum Ltd.		50%	79,980	188,428	--	--	268,408	15
Phillips Petroleum Canada Ltd.		50%						
Pan Ocean Oil (Canada) Ltd.		45%	--	--	285,644	--	285,644	58
Peyto Oils Ltd.		28%						
High North Petroleum Ltd.		14%						
Norris Holdings Ltd.		13%						
Pennant-Pluma Oils Ltd.		66-2/3%	--	72,169	--	--	72,169	59
Provident Resources Ltd.		16-2/3%						
Colonial Oil & Gas Limited		16-2/3%						
Ranger Oil (Canada) Ltd.		57%	935,436	--	--	--	935,436	3
Canadian Superior Oil Ltd.		20%						
Hudson's Bay Oil and Gas Company Limited		10%						
Bow Valley Industries Ltd.		8%						
Sun Oil Company Limited		5%						
Shell Canada Resources Limited		50%	16,696,266	--	--	12,283,818	28,980,084	10
Shell Explorer Limited		50%						
Sogepet Limited		33-1/3%	--	--	234,930	--	234,930	51
Teck Corporation Limited		33-1/3%						
Canadian Homestead Oils Limited		33-1/3%						
Sogepet Limited		60%	--	--	2,938,578	--	2,938,578	64
Canadian Homestead Oils Limited		20%						
Teck Corporation Limited		20%						
Total Eastcan Exploration Ltd.		28.33%	3,002,996	25,477,541	--	--	28,480,537	12
Amerada Minerals Corporation of Canada Ltd.		16.67%						
Gulf Oil Canada Limited		16.67%						
Aquitaine Company of Canada Ltd.		13.33%						
AGIP Canada Ltd.		10.00%						
Sun Oil Company Limited		10.00%						
Total Petroleum (North America) Ltd.		5.00%						
Tricentrol Canada Limited		69%	--	35,228	--	--	35,228	106
Oakwood Petroleum Ltd.		31%						
Westcoast Petroleum Ltd.		75%	--	571,790	--	--	571,790	See 60
Ulster Petroleum Ltd.		25%						
TOTAL			88,688,883	40,269,718	14,280,503	15,770,602	159,009,706	



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